

Content

| | |
|--|-----|
| Primer-Blast results | 1 |
| Search parameters and other details for primers 146F1-146R1 [22] | 1 |
| Search parameters and other details for primers 146F2-146R2 [22, 40] | 7 |
| Search parameters and other details for primers WSS1011F - WSS1079R [18] | 19 |
| Search parameters and other details for primers RT-WSSV-F154 - RT-WSSV-R154 [41] | 30 |
| Search parameters and other details for primers WSSV341F - WSSV341R [42] | 48 |
| Search parameters and other details for primers P1 – P2 [43] | 65 |
| Search parameters and other details for primers P3 – P4 [43] | 72 |
| Search parameters and other details for primers FQ-P3 – FQ-P4 [44] | 80 |
| Search parameters and other details for primers WSSV-RT1 – WSSV-RT2 [45] | 87 |
| Search parameters and other details for primers Forward – Reverse [46] | 94 |
| Search parameters and other details for primers VP28-140Fw – VP28-140Rv [23] | 111 |

Primer-Blast results

Search parameters and other details for primers 146F1-146R1 [22]

| | |
|--------------------------------------|-------|
| Number of Blast hits analyzed | 16581 |
| Entrez query | |
| Min total mismatches | 2 |
| Min 3' end mismatches | 2 |
| Defined 3' end region length | 5 |
| Mismatch threshold to ignore targets | 9 |
| Max target size | 4000 |

| | |
|--------------------------------------|-------|
| Max number of Blast target sequences | 50000 |
| Blast E value | 30000 |
| Blast word size | 7 |
| Max candidate primer pairs | 500 |
| Min PCR product size | 68 |
| Max PCR product size | 1000 |
| Min Primer size | 15 |
| Opt Primer size | 20 |
| Max Primer size | 25 |
| Min Tm | 57 |
| Opt Tm | 60 |
| Max Tm | 63 |
| Max Tm difference | 3 |
| Repeat filter | AUTO |
| Low complexity filter | Yes |

Primer pair 1

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|---------------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | ACTACTAACTTCAGCCTATCTAG | 23 | 54.21 | 39.13 | 4.00 | 4.00 |
| Rv | TAATGCGGGTGTAATGTTCTTACGA | 25 | 60.62 | 40.00 | 4.00 | 4.00 |

Products on target templates

>ON457602.1 *White spot syndrome virus isolate GoC18, partial genome*

product length = 1447

Forward primer 1 ACTACTAACTTCAGCCTATCTAG 23
 Template 100057 100035

Reverse primer 1 TAATGCGGGTGTAATGTTCTTACGA 25
 Template 98611 98635

>AP027290.1 *MAG: White spot syndrome virus Miyako2021 DNA, complete genome*

product length = 1447

Forward primer 1 ACTACTAACTTCAGCCTATCTAG 23
 Template 221088 221110

Reverse primer 1 TAATGCGGGTGTAATGTTCTTACGA 25
 Template 222534 222510

>AP027289.1 *MAG: White spot syndrome virus 1-4 DNA, complete genome*

product length = 1447

Forward primer 1 ACTACTAACTTCAGCCTATCTAG 23
 Template 221385 221407

Reverse primer 1 TAATGCGGGTGTAATGTTCTTACGA 25
 Template 222831 222807

>AP027288.1 *MAG: White spot syndrome virus 0722-1 DNA, complete genome*

product length = 1447

Forward primer 1 ACTACTAACTTCAGCCTATCTAG 23
 Template 222293 222315

Reverse primer 1 TAATGCGGGTGTAATGTTCTTACGA 25
 Template 223739 223715

>AP027287.1 *MAG: White spot syndrome virus E2 DNA, complete genome*

product length = 1447

```

Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       222810 ..... 222832

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       224256 ..... 224232

>AP027286.1 MAG: White spot syndrome virus E1 DNA, complete genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       222811 ..... 222833

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       224257 ..... 224233

>AP027285.1 MAG: White spot syndrome virus S14 DNA, complete genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       222745 ..... 222767

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       224191 ..... 224167

>AP027284.1 MAG: White spot syndrome virus Pc2020 DNA, complete genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       228737 ..... 228759

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       230183 ..... 230159

>AP027283.1 MAG: White spot syndrome virus 79 DNA, complete genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       226095 ..... 226117

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       227541 ..... 227517

>AP027282.1 MAG: White spot syndrome virus JP04 DNA, complete genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       229854 ..... 229876

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       231300 ..... 231276

>AP027281.1 MAG: White spot syndrome virus JP03 DNA, complete genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       230038 ..... 230060

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       231484 ..... 231460

>AP027280.1 MAG: White spot syndrome virus JP02 DNA, complete genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       228879 ..... 228901

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       230325 ..... 230301

>AP027279.1 MAG: White spot syndrome virus JP01B DNA, complete genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23

```

```

Template      228672 ..... 228694

Reverse primer 1      TAATGCGGGTGAATGTTCTTACGA 25
Template      230118 ..... 230094

>AP027278.1 MAG: White spot syndrome virus JP01A DNA, complete genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      228699 ..... 228721

Reverse primer 1      TAATGCGGGTGAATGTTCTTACGA 25
Template      230145 ..... 230121

>OM350393.2 White spot syndrome virus isolate WSSV-Peru, partial genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      219142 ..... 219164

Reverse primer 1      TAATGCGGGTGAATGTTCTTACGA 25
Template      220588 ..... 220564

>NC_075105.1 White spot syndrome virus, complete genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      228889 ..... 228911

Reverse primer 1      TAATGCGGGTGAATGTTCTTACGA 25
Template      230335 ..... 230311

>MW248108.1 MAG: White spot syndrome virus isolate CWG3
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      122919 ..... 122941

Reverse primer 1      TAATGCGGGTGAATGTTCTTACGA 25
Template      124365 ..... 124341

>MW248107.1 MAG: White spot syndrome virus isolate DBA1182
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      188462 ..... 188484

Reverse primer 1      TAATGCGGGTGAATGTTCTTACGA 25
Template      189908 ..... 189884

>MW248106.1 MAG: White spot syndrome virus isolate PGI
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      123057 ..... 123079

Reverse primer 1      TAATGCGGGTGAATGTTCTTACGA 25
Template      124503 ..... 124479

>MN840357.1 White spot syndrome virus isolate CN_95_DFPE
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      228874 ..... 228896

Reverse primer 1      TAATGCGGGTGAATGTTCTTACGA 25
Template      230320 ..... 230296

>MH883319.1 White spot syndrome virus isolate wssv_ciba_003
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      165946 ..... 165968

Reverse primer 1      TAATGCGGGTGAATGTTCTTACGA 25
Template      167392 ..... 167368

>MH883318.1 White spot syndrome virus isolate WSSV_CIBA_002
product length = 1447

```

```

Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       218702 ..... 218724

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       220148 ..... 220124

>KU216744.2 White spot syndrome virus strain MEX2008
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       280429 ..... 280451

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       281875 ..... 281851

>MG432482.1 Shrimp white spot syndrome virus isolate LG
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       190568 ..... 190590

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       192014 ..... 191990

>MG432481.1 Shrimp white spot syndrome virus isolate LC1
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       210729 ..... 210751

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       212175 ..... 212151

>MG432480.1 Shrimp white spot syndrome virus isolate LC10
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       202671 ..... 202693

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       204117 ..... 204093

>MG432479.1 Shrimp white spot syndrome virus isolate JP
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       208270 ..... 208292

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       209716 ..... 209692

>MG432477.1 Shrimp white spot syndrome virus isolate DVI
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       220421 ..... 220443

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       221867 ..... 221843

>MG432476.1 Shrimp white spot syndrome virus isolate ACF4
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       210076 ..... 210098

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       211522 ..... 211498

>MG432475.1 Shrimp white spot syndrome virus isolate ACF2
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       220087 ..... 220109

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template       221533 ..... 221509

>MG432474.1 Shrimp white spot syndrome virus isolate AC1

```

```

product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      202178 ..... 202200

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template      203624 ..... 203600

>MH090824.1 White spot syndrome virus isolate WSSV-EC-15098
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      223015 ..... 223037

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template      224461 ..... 224437

>MG702567.1 White spot syndrome virus isolate IN_AP4RU
product length = 1429
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      39105 ..... 39127

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template      40533 ..... 40509

>MF784752.1 White spot syndrome virus isolate FSL39, partial genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      272996 ..... 273018

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template      274442 ..... 274418

>MF768985.1 White spot syndrome virus isolate WSSV-AU
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      266641 ..... 266663

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template      268087 ..... 268063

>KX686117.1 White spot syndrome virus strain PC
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      66214 ..... 66236

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template      67660 ..... 67636

>KY827813.1 White spot syndrome virus strain CN04
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      216752 ..... 216774

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template      218198 ..... 218174

>NC_003225.3 White spot syndrome virus strain CN01, complete genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      227182 ..... 227204

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template      228628 ..... 228604

>KT995472.1 White spot syndrome virus strain CN01
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template      227182 ..... 227204

Reverse primer 1      TAATGCGGGTGTAAATGTTCTTACGA 25
Template      228628 ..... 228604

```

```

>KT995471.1 White spot syndrome virus strain CN03
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       218861 ..... 218883

Reverse primer 1      TAATGCGGGTGTAATGTTCTTACGA 25
Template       220307 ..... 220283

>KT995470.1 White spot syndrome virus strain CN02
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       223065 ..... 223087

Reverse primer 1      TAATGCGGGTGTAATGTTCTTACGA 25
Template       224511 ..... 224487

>JX515788.1 White spot syndrome virus strain K-LV1, complete genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       221565 ..... 221587

Reverse primer 1      TAATGCGGGTGTAATGTTCTTACGA 25
Template       223011 ..... 222987

>AF369029.2 White spot syndrome virus, complete genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       273311 ..... 273333

Reverse primer 1      TAATGCGGGTGTAATGTTCTTACGA 25
Template       274757 ..... 274733

>AF440570.1 Shrimp white spot syndrome virus, complete genome
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       259207 ..... 259229

Reverse primer 1      TAATGCGGGTGTAATGTTCTTACGA 25
Template       260653 ..... 260629

>U50923.1 Penaeus monodon nonoccluded baculovirus III Sali fragment genomic sequence
product length = 1447
Forward primer 1      ACTACTAACTTCAGCCTATCTAG 23
Template       9 ..... 31

Reverse primer 1      TAATGCGGGTGTAATGTTCTTACGA 25
Template       1455 ..... 1431

```

Search parameters and other details for primers 146F2-146R2 [22, 40]

| | |
|--------------------------------------|-------|
| Number of Blast hits analyzed | 30191 |
| Entrez query | |
| Min total mismatches | 2 |
| Min 3' end mismatches | 2 |
| Defined 3' end region length | 5 |
| Mismatch threshold to ignore targets | 9 |
| Max target size | 4000 |
| Max number of Blast target sequences | 50000 |
| Blast E value | 30000 |
| Blast word size | 7 |
| Max candidate primer pairs | 500 |

| | |
|-----------------------|------|
| Min PCR product size | 64 |
| Max PCR product size | 1000 |
| Min Primer size | 15 |
| Opt Primer size | 20 |
| Max Primer size | 25 |
| Min Tm | 57 |
| Opt Tm | 60 |
| Max Tm | 63 |
| Max Tm difference | 3 |
| Repeat filter | AUTO |
| Low complexity filter | Yes |

Primer pair 2

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|------------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | GTAAGTGGCCCTTCCATCTCCA | 22 | 61.75 | 54.55 | 3.00 | 0.00 |
| Rv | TACGGCAGCTGCTGCACCTTGT | 22 | 67.22 | 59.09 | 9.00 | 3.00 |

Products on target templates

>AP027290.1 MAG: White spot syndrome virus Miyako2021 DNA, complete genome

product length = 941

Forward primer 1 GTAAGTGGCCCTTCCATCTCCA 22
 Template 221339 221360

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
 Template 222279 222258

>AP027289.1 MAG: White spot syndrome virus 1-4 DNA, complete genome

product length = 941

Forward primer 1 GTAAGTGGCCCTTCCATCTCCA 22
 Template 221636 221657

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
 Template 222576 222555

product length = 1690

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
 Template 49549 .GAT..T.....T....C. 49528

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
 Template 47860 .GT.C.C.....CA....C 47881

>AP027288.1 MAG: White spot syndrome virus 0722-1 DNA, complete genome

product length = 941

Forward primer 1 GTAAGTGGCCCTTCCATCTCCA 22
 Template 222544 222565

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
 Template 223484 223463

product length = 1690

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
 Template 49159 .GAT..T.....T....C. 49138

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
 Template 47470 .GT.C.C.....CA....C 47491

>AP027287.1 MAG: White spot syndrome virus E2 DNA, complete genome

product length = 941

Forward primer 1 GTAAGTGGCCCTTCCATCTCCA 22
 Template 223061 223082


```

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       224001 ..... 223980

product length = 1690
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       49331 .GAT..T.....T....C. 49310

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       47642 .GT.C.C.....CA....C 47663

>AP027286.1 MAG: White spot syndrome virus E1 DNA, complete genome
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       223062 ..... 223083

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       224002 ..... 223981

product length = 1690
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       49331 .GAT..T.....T....C. 49310

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       47642 .GT.C.C.....CA....C 47663

>AP027285.1 MAG: White spot syndrome virus S14 DNA, complete genome
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       222996 ..... 223017

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       223936 ..... 223915

product length = 1690
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       49331 .GAT..T.....T....C. 49310

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       47642 .GT.C.C.....CA....C 47663

>AP027284.1 MAG: White spot syndrome virus Pc2020 DNA, complete genome
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       228988 ..... 229009

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       229928 ..... 229907

product length = 1712
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       50853 .GAT..T.....T....C. 50832

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       49142 .GT.C.C.....CA....C 49163

>AP027283.1 MAG: White spot syndrome virus 79 DNA, complete genome
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       226346 ..... 226367

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       227286 ..... 227265

product length = 1690
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22

```

```

Template          48409  .GAT..T.....T....C.  48388

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          46720  .GT.C.C.....CA....C  46741

>AP027282.1 MAG: White spot syndrome virus JP04 DNA, complete genome
product length = 941
Forward primer    1      GTAAGTGGCCCTTCCATCTCCA  22
Template          230105  .....  230126

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          231045  .....  231024

product length = 1690
Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          51865  .GAT..T.....T....C.  51844

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          50176  .GT.C.C.....CA....C  50197

>AP027281.1 MAG: White spot syndrome virus JP03 DNA, complete genome
product length = 941
Forward primer    1      GTAAGTGGCCCTTCCATCTCCA  22
Template          230289  .....  230310

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          231229  .....  231208

product length = 1690
Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          51759  .GAT..T.....T....C.  51738

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          50070  .GT.C.C.....CA....C  50091

>AP027280.1 MAG: White spot syndrome virus JP02 DNA, complete genome
product length = 941
Forward primer    1      GTAAGTGGCCCTTCCATCTCCA  22
Template          229130  .....  229151

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          230070  .....  230049

product length = 1690
Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          50885  .GAT..T.....T....C.  50864

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          49196  .GT.C.C.....CA....C  49217

>AP027279.1 MAG: White spot syndrome virus JP01B DNA, complete genome
product length = 941
Forward primer    1      GTAAGTGGCCCTTCCATCTCCA  22
Template          228923  .....  228944

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          229863  .....  229842

product length = 1712
Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          50861  .GAT..T.....T....C.  50840

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          49150  .GT.C.C.....CA....C  49171

>AP027278.1 MAG: White spot syndrome virus JP01A DNA, complete genome
product length = 941

```

```

Forward primer 1      GTAAGTGGCCCTTCCATCTCCA 22
Template      228950 ..... 228971

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT 22
Template      229890 ..... 229869

product length = 1712
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT 22
Template      50865 .GAT..T.....T....C. 50844

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT 22
Template      49154 .GT.C.C.....CA....C 49175

>ON457602.1 White spot syndrome virus isolate GoC18, partial genome
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA 22
Template      99806 ..... 99785

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT 22
Template      98866 ..... 98887

product length = 1690
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT 22
Template      274732 .GT.C.C.....CA....C 274711

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT 22
Template      273043 .GAT..T.....T....C. 273064

>OM350393.2 White spot syndrome virus isolate WSSV-Peru, partial genome
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA 22
Template      219393 ..... 219414

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT 22
Template      220333 ..... 220312

product length = 1690
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT 22
Template      48238 .GAT..T.....T....C. 48217

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT 22
Template      46549 .GT.C.C.....CA....C 46570

>NC_075105.1 White spot syndrome virus, complete genome
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA 22
Template      229140 ..... 229161

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT 22
Template      230080 ..... 230059

product length = 1690
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT 22
Template      50894 .GAT..T.....T....C. 50873

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT 22
Template      49205 .GT.C.C.....CA....C 49226

>MW248108.1 MAG: White spot syndrome virus isolate CWG3
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA 22
Template      123170 ..... 123191

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT 22
Template      124110 ..... 124089

```

```

product length = 1690
Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 235861 .GAT..T.....T....C. 235840

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 234172 .GT.C.C.....CA....C 234193

>MW248107.1 MAG: White spot syndrome virus isolate DBA1182
product length = 941
Forward primer 1 GTAAGTGGCCCTTCCATCTCCA 22
Template 188713 ..... 188734

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 189653 ..... 189632

product length = 1691
Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 20460 .GAT..T.....T....C. 20439

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 18770 .GT.C.C.....CA....C 18791

>MW248106.1 MAG: White spot syndrome virus isolate PGI
product length = 941
Forward primer 1 GTAAGTGGCCCTTCCATCTCCA 22
Template 123308 ..... 123329

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 124248 ..... 124227

product length = 1690
Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 239209 .GAT..T.....T....C. 239188

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 237520 .GT.C.C.....CA....C 237541

>MN840357.1 White spot syndrome virus isolate CN_95_DFPE
product length = 941
Forward primer 1 GTAAGTGGCCCTTCCATCTCCA 22
Template 229125 ..... 229146

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 230065 ..... 230044

product length = 1690
Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 50892 .GAT..T.....T....C. 50871

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 49203 .GT.C.C.....CA....C 49224

>MH883319.1 White spot syndrome virus isolate wssv_ciba_003
product length = 941
Forward primer 1 GTAAGTGGCCCTTCCATCTCCA 22
Template 166197 ..... 166218

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 167137 ..... 167116

product length = 1691
Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 275980 .GAT..T.....T....C. 275959

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 274290 .GT.C.C.....CA....C 274311

```

```

>MH883318.1 White spot syndrome virus isolate WSSV_CIBA_002
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       218953 ..... 218974

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       219893 ..... 219872

product length = 1691
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       50376  .GAT..T.....T....C.  50355

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       48686  .GT.C.C.....CA....C  48707

>KU216744.2 White spot syndrome virus strain MEX2008
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       280680 ..... 280701

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       281620 ..... 281599

product length = 1675
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       102331 .GAT..T.....T....C.  102310

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       100657 .GT.C.C.....CA....C  100678

>MG432482.1 Shrimp white spot syndrome virus isolate LG
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       190819 ..... 190840

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       191759 ..... 191738

product length = 1691
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       44524  .GAT..T.....T....C.  44503

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       42834  .GT.C.C.....CA....C  42855

>MG432481.1 Shrimp white spot syndrome virus isolate LC1
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       210980 ..... 211001

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       211920 ..... 211899

product length = 1689
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       36471  .GAT..T.....T....C.  36450

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       34783  .GT.C.C.....CA....C  34804

>MG432480.1 Shrimp white spot syndrome virus isolate LC10
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       202922 ..... 202943

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       203862 ..... 203841

```

```

product length = 1689
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template      28639  .GAT..T.....T....C.  28618

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template      26951  .GT.C.C.....CA....C  26972

>MG432479.1 Shrimp white spot syndrome virus isolate JP
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template      208521  .....  208542

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template      209461  .....  209440

product length = 1675
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template      46208  .GAT..T.....T....C.  46187

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template      44534  .GT.C.C.....CA....C  44555

>MG432477.1 Shrimp white spot syndrome virus isolate DVI
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template      220672  .....  220693

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template      221612  .....  221591

product length = 1690
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template      46278  .GAT..T.....T....C.  46257

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template      44589  .GT.C.C.....CA....C  44610

>MG432476.1 Shrimp white spot syndrome virus isolate ACF4
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template      210327  .....  210348

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template      211267  .....  211246

product length = 1688
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template      43811  .GAT..T.....T....C.  43790

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template      42124  .GT.C.C.....CA....C  42145

>MG432475.1 Shrimp white spot syndrome virus isolate ACF2
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template      220338  .....  220359

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template      221278  .....  221257

product length = 1689
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template      46283  .GAT..T.....T....C.  46262

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22

```

```

Template          44595  .GT.C.C.....CA....C  44616

>MG432474.1 Shrimp white spot syndrome virus isolate AC1
product length = 941
Forward primer    1      GTAAGTGGCCCTTCCATCTCCA  22
Template          202429 .....  202450

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          203369 .....  203348

product length = 1690
Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          46292  .GAT..T.....T....C.  46271

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          44603  .GT.C.C.....CA....C  44624

>MH090824.1 White spot syndrome virus isolate WSSV-EC-15098
product length = 941
Forward primer    1      GTAAGTGGCCCTTCCATCTCCA  22
Template          223266 .....  223287

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          224206 .....  224185

product length = 1690
Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          50016  .GAT..T.....T....C.  49995

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          48327  .GT.C.C.....CA....C  48348

>MF101757.1 White spot syndrome virus isolate HQY_1 VP664-like protein gene, partial cds
product length = 941
Forward primer    1      GTAAGTGGCCCTTCCATCTCCA  22
Template          194    .....  215

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          1134    .....  1113

>MF784752.1 White spot syndrome virus isolate FSL39, partial genome
product length = 941
Forward primer    1      GTAAGTGGCCCTTCCATCTCCA  22
Template          273247 .....  273268

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          274187 .....  274166

product length = 1669
Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          96150  .GAT..T.....T....C.  96129

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          94482  .GT.C.C.....CA....C  94503

>MF768985.1 White spot syndrome virus isolate WSSV-AU
product length = 941
Forward primer    1      GTAAGTGGCCCTTCCATCTCCA  22
Template          266892 .....  266913

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          267832 .....  267811

product length = 1690
Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          97142  .GAT..T.....T....C.  97121

```

```

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       95453  .GT.C.C.....CA....C  95474

>KX686117.1 White spot syndrome virus strain PC
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       66465  .....  66486

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       67405  .....  67384

product length = 1690
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       189195 .GAT..T.....T....C.  189174

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       187506 .GT.C.C.....CA....C  187527

>MF161441.1 Shrimp white spot syndrome virus strain aus_retail_1 hypothetical protein gene,
partial cds
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       186    .....  207

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       1126   .....  1105

>KY827813.1 White spot syndrome virus strain CN04
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       217003 .....  217024

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       217943 .....  217922

product length = 1689
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       48709  .GAT..T.....T....C.  48688

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       47021  .GT.C.C.....CA....C  47042

>KT964173.1 White spot syndrome virus strain WSSV-Mx-F-2001 ORF167 gene, partial cds
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       234    .....  255

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       1174   .....  1153

>KT894028.3 White spot syndrome virus strain IWV-MS1 hypothetical protein gene, partial cds
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       1      .....  22

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       941    .....  920

>NC_003225.3 White spot syndrome virus strain CN01, complete genome
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       227433 .....  227454

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       228373 .....  228352

product length = 1690
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22

```



```

Template          50278  .GAT..T.....T....C.  50257

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          48589  .GT.C.C.....CA....C  48610

>KT995472.1 White spot syndrome virus strain CN01
product length = 941
Forward primer    1      GTAAGTGGCCCTTCCATCTCCA  22
Template          227433  .....  227454

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          228373  .....  228352

product length = 1690
Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          50278  .GAT..T.....T....C.  50257

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          48589  .GT.C.C.....CA....C  48610

>KT995471.1 White spot syndrome virus strain CN03
product length = 941
Forward primer    1      GTAAGTGGCCCTTCCATCTCCA  22
Template          219112  .....  219133

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          220052  .....  220031

product length = 1690
Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          48157  .GAT..T.....T....C.  48136

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          46468  .GT.C.C.....CA....C  46489

>KT995470.1 White spot syndrome virus strain CN02
product length = 941
Forward primer    1      GTAAGTGGCCCTTCCATCTCCA  22
Template          223316  .....  223337

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          224256  .....  224235

product length = 1691
Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          50465  .GAT..T.....T....C.  50444

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          48775  .GT.C.C.....CA....C  48796

>KJ773998.1 White spot syndrome virus isolate BAN_SH_AL-1_2014 VP664 gene, partial cds
product length = 941
Forward primer    1      GTAAGTGGCCCTTCCATCTCCA  22
Template          215    .....  236

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          1155  .....  1134

>KJ719075.1 White spot syndrome virus isolate BAN_ST-3_2013 VP664 gene, partial cds
product length = 941
Forward primer    1      GTAAGTGGCCCTTCCATCTCCA  22
Template          71    .....  92

Reverse primer    1      TACGGCAGCTGCTGCACCTTGT  22
Template          1011  .....  990

>KF032716.1 White spot syndrome virus strain IR-Chabahar-Naseri-1 hypothetical protein gene,
partial cds

```

```

product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       178    ..... 199

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       1118   ..... 1097

>JX515788.1 White spot syndrome virus strain K-LV1, complete genome
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       221816 ..... 221837

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       222756 ..... 222735

product length = 1690
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       46331  .GAT..T.....T....C.  46310

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       44642  .GT.C.C.....CA....C  44663

>JX564899.1 Shrimp white spot syndrome virus isolate CM-VN1 nonfunctional NS protein gene,
partial sequence
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       222    ..... 243

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       1162   ..... 1141

>FJ001816.1 Shrimp white spot syndrome virus strain GXBH001 genomic sequence
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       941    ..... 920

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       1      ..... 22

>AF369029.2 White spot syndrome virus, complete genome
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       273562 ..... 273583

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       274502 ..... 274481

product length = 1690
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       95238  .GAT..T.....T....C.  95217

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       93549  .GT.C.C.....CA....C  93570

>AF361753.1 White spot syndrome virus, partial sequence
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       220    ..... 241

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       1160   ..... 1139

>AF440570.1 Shrimp white spot syndrome virus, complete genome
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       259458 ..... 259479

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       260398 ..... 260377

```

```

product length = 1689
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       79867  .GAT..T.....T....C.  79846

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       78179  .GT.C.C.....CA....C  78200

>AJ297947.1 White spot syndrome baculovirus DNA fragment
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       1      .....  22

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       941    .....  920

>U50923.1 Penaeus monodon nonoccluded baculovirus III Sali fragment genomic sequence
product length = 941
Forward primer 1      GTAAGTGGCCCTTCCATCTCCA  22
Template       260    .....  281

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       1200   .....  1179

>MG432478.1 Shrimp white spot syndrome virus isolate GVE05
product length = 1604
Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       45485  .GAT..T.....T....C.  45464

Reverse primer 1      TACGGCAGCTGCTGCACCTTGT  22
Template       43882  .GT.C.C.....CA....C  43903

```

Search parameters and other details for primers WSS1011F – [18]

| | |
|--------------------------------------|-------|
| Number of Blast hits analyzed | 12224 |
| Entrez query | |
| Min total mismatches | 2 |
| Min 3' end mismatches | 2 |
| Defined 3' end region length | 5 |
| Mismatch threshold to ignore targets | 9 |
| Max target size | 4000 |
| Max number of Blast target sequences | 50000 |
| Blast E value | 30000 |
| Blast word size | 7 |
| Max candidate primer pairs | 500 |
| Min PCR product size | 59 |
| Max PCR product size | 1000 |

| | |
|-----------------------|------|
| Min Primer size | 15 |
| Opt Primer size | 20 |
| Max Primer size | 25 |
| Min Tm | 57 |
| Opt Tm | 60 |
| Max Tm | 63 |
| Max Tm difference | 3 |
| Repeat filter | AUTO |
| Low complexity filter | Yes |

Primer pair 3

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|----------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | TGGTCCCGTCCTCATCTCAG | 20 | 60.68 | 60.00 | 3.00 | 3.00 |
| Rv | GCTGCCTTGCCGAAATTA | 19 | 58.81 | 52.63 | 6.00 | 2.00 |

Products on target templates

>AP027290.1 MAG: White spot syndrome virus Miyako2021 DNA, complete genome

product length = 69

Forward primer 1 TGGTCCCGTCCTCATCTCAG 20
Template 222090 222109

Reverse primer 1 GCTGCCTTGCCGAAATTA 19
Template 222158 222140

>AP027289.1 MAG: White spot syndrome virus 1-4 DNA, complete genome

product length = 69

Forward primer 1 TGGTCCCGTCCTCATCTCAG 20
Template 222387 222406

Reverse primer 1 GCTGCCTTGCCGAAATTA 19
Template 222455 222437

>AP027288.1 MAG: White spot syndrome virus 0722-1 DNA, complete genome

product length = 69

Forward primer 1 TGGTCCCGTCCTCATCTCAG 20
Template 223295 223314

Reverse primer 1 GCTGCCTTGCCGAAATTA 19
Template 223363 223345

>AP027287.1 MAG: White spot syndrome virus E2 DNA, complete genome

product length = 69

Forward primer 1 TGGTCCCGTCCTCATCTCAG 20
Template 223812 223831

Reverse primer 1 GCTGCCTTGCCGAAATTA 19
Template 223880 223862

>AP027286.1 MAG: White spot syndrome virus E1 DNA, complete genome

product length = 69

Forward primer 1 TGGTCCCGTCCTCATCTCAG 20
Template 223813 223832

Reverse primer 1 GCTGCCTTGCCGAAATTA 19
Template 223881 223863

>AP027285.1 MAG: White spot syndrome virus S14 DNA, complete genome

product length = 69

Forward primer 1 TGGTCCCGTCCTCATCTCAG 20
Template 223747 223766

Reverse primer 1 GCTGCCTTGCCGAAATTA 19

```

Template          223815 ..... 223797

>AP027284.1 MAG: White spot syndrome virus Pc2020 DNA, complete genome
product length = 69
Forward primer    1          TGGTCCCGTCCTCATCTCAG  20
Template          229739 ..... 229758

Reverse primer    1          GCTGCCTTGCCGAAATTA  19
Template          229807 ..... 229789

>AP027283.1 MAG: White spot syndrome virus 79 DNA, complete genome
product length = 69
Forward primer    1          TGGTCCCGTCCTCATCTCAG  20
Template          227097 ..... 227116

Reverse primer    1          GCTGCCTTGCCGAAATTA  19
Template          227165 ..... 227147

>AP027282.1 MAG: White spot syndrome virus JP04 DNA, complete genome
product length = 69
Forward primer    1          TGGTCCCGTCCTCATCTCAG  20
Template          230856 ..... 230875

Reverse primer    1          GCTGCCTTGCCGAAATTA  19
Template          230924 ..... 230906

>AP027281.1 MAG: White spot syndrome virus JP03 DNA, complete genome
product length = 69
Forward primer    1          TGGTCCCGTCCTCATCTCAG  20
Template          231040 ..... 231059

Reverse primer    1          GCTGCCTTGCCGAAATTA  19
Template          231108 ..... 231090

>AP027280.1 MAG: White spot syndrome virus JP02 DNA, complete genome
product length = 69
Forward primer    1          TGGTCCCGTCCTCATCTCAG  20
Template          229881 ..... 229900

Reverse primer    1          GCTGCCTTGCCGAAATTA  19
Template          229949 ..... 229931

>AP027279.1 MAG: White spot syndrome virus JP01B DNA, complete genome
product length = 69
Forward primer    1          TGGTCCCGTCCTCATCTCAG  20
Template          229674 ..... 229693

Reverse primer    1          GCTGCCTTGCCGAAATTA  19
Template          229742 ..... 229724

>AP027278.1 MAG: White spot syndrome virus JP01A DNA, complete genome
product length = 69
Forward primer    1          TGGTCCCGTCCTCATCTCAG  20
Template          229701 ..... 229720

Reverse primer    1          GCTGCCTTGCCGAAATTA  19
Template          229769 ..... 229751

>ON457602.1 White spot syndrome virus isolate GoC18, partial genome
product length = 69
Forward primer    1          TGGTCCCGTCCTCATCTCAG  20
Template          99055 ..... 99036

Reverse primer    1          GCTGCCTTGCCGAAATTA  19
Template          98987 ..... 99005

>OM350393.2 White spot syndrome virus isolate WSSV-Peru, partial genome
product length = 69
Forward primer    1          TGGTCCCGTCCTCATCTCAG  20
Template          220144 ..... 220163

```

```

Reverse primer 1      GCTGCCTTGCCGAAATTA 19
Template       220212 ..... 220194

>NC_075105.1 White spot syndrome virus, complete genome
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG 20
Template       229891 ..... 229910

Reverse primer 1      GCTGCCTTGCCGAAATTA 19
Template       229959 ..... 229941

>MT543322.1 White spot syndrome virus isolate Cq/2020/20-002 VP664 gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG 20
Template       714 ..... 733

Reverse primer 1      GCTGCCTTGCCGAAATTA 19
Template       782 ..... 764

>MT543321.1 White spot syndrome virus isolate Cq/2020/20-004 VP664 gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG 20
Template       704 ..... 723

Reverse primer 1      GCTGCCTTGCCGAAATTA 19
Template       772 ..... 754

>MW498976.1 White spot syndrome virus isolate Cq/2020/20-012 VP664 gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG 20
Template       707 ..... 726

Reverse primer 1      GCTGCCTTGCCGAAATTA 19
Template       775 ..... 757

>MW498975.1 White spot syndrome virus isolate Cq/2020/20-008 VP664 gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG 20
Template       703 ..... 722

Reverse primer 1      GCTGCCTTGCCGAAATTA 19
Template       771 ..... 753

>MT755013.1 White spot syndrome virus isolate AKW-MB-1 hypothetical protein gene, partial
cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG 20
Template       627 ..... 646

Reverse primer 1      GCTGCCTTGCCGAAATTA 19
Template       695 ..... 677

>MW248108.1 MAG: White spot syndrome virus isolate CWG3
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG 20
Template       123921 ..... 123940

Reverse primer 1      GCTGCCTTGCCGAAATTA 19
Template       123989 ..... 123971

>MW248107.1 MAG: White spot syndrome virus isolate DBA1182
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG 20
Template       189464 ..... 189483

Reverse primer 1      GCTGCCTTGCCGAAATTA 19
Template       189532 ..... 189514

>MW248106.1 MAG: White spot syndrome virus isolate PGI
product length = 69

```

```

Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       124059 ..... 124078

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       124127 ..... 124109

>MT108485.1 White spot syndrome virus isolate SISTAN_GH02 VP664 gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       706 ..... 725

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       774 ..... 756

>MN481520.1 White spot syndrome virus strain KK-Lv-VIET1 VP664 (VP664) gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       754 ..... 773

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       822 ..... 804

>MN840357.1 White spot syndrome virus isolate CN_95_DFPE
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       229876 ..... 229895

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       229944 ..... 229926

>MH883319.1 White spot syndrome virus isolate wssv_ciba_003
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       166948 ..... 166967

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       167016 ..... 166998

>MH883318.1 White spot syndrome virus isolate WSSV_CIBA_002
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       219704 ..... 219723

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       219772 ..... 219754

>MH268228.1 White spot syndrome virus strain GBWSSV1 VP664-like protein gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       96 ..... 77

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       28 ..... 46

>KU216744.2 White spot syndrome virus strain MEX2008
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       281431 ..... 281450

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       281499 ..... 281481

>MG432482.1 Shrimp white spot syndrome virus isolate LG
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       191570 ..... 191589

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       191638 ..... 191620

```

```

>MG432481.1 Shrimp white spot syndrome virus isolate LC1
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       211731 ..... 211750

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       211799 ..... 211781

>MG432480.1 Shrimp white spot syndrome virus isolate LC10
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       203673 ..... 203692

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       203741 ..... 203723

>MG432479.1 Shrimp white spot syndrome virus isolate JP
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       209272 ..... 209291

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       209340 ..... 209322

>MG432477.1 Shrimp white spot syndrome virus isolate DVI
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       221423 ..... 221442

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       221491 ..... 221473

>MG432476.1 Shrimp white spot syndrome virus isolate ACF4
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       211078 ..... 211097

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       211146 ..... 211128

>MG432475.1 Shrimp white spot syndrome virus isolate ACF2
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       221089 ..... 221108

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       221157 ..... 221139

>MG432474.1 Shrimp white spot syndrome virus isolate AC1
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       203180 ..... 203199

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       203248 ..... 203230

>MH090824.1 White spot syndrome virus isolate WSSV-EC-15098
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       224017 ..... 224036

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       224085 ..... 224067

>MF101757.1 White spot syndrome virus isolate HQY_1 VP664-like protein gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       945 ..... 964

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       1013 ..... 995

```



```

>MG702567.1 White spot syndrome virus isolate IN_AP4RU
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       40094 ..... 40113

Reverse primer 1      GCTGCCTTGCCGGAATTA  19
Template       40162 ..... 40144

>MF784752.1 White spot syndrome virus isolate FSL39, partial genome
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       273998 ..... 274017

Reverse primer 1      GCTGCCTTGCCGGAATTA  19
Template       274066 ..... 274048

>KY474512.1 White spot syndrome virus strain SISTAN-2016 VP664 (VP664) gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       744 ..... 763

Reverse primer 1      GCTGCCTTGCCGGAATTA  19
Template       812 ..... 794

>MF768985.1 White spot syndrome virus isolate WSSV-AU
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       267643 ..... 267662

Reverse primer 1      GCTGCCTTGCCGGAATTA  19
Template       267711 ..... 267693

>KX686117.1 White spot syndrome virus strain PC
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       67216 ..... 67235

Reverse primer 1      GCTGCCTTGCCGGAATTA  19
Template       67284 ..... 67266

>MF161441.1 Shrimp white spot syndrome virus strain aus_retail_1 hypothetical protein gene,
partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       937 ..... 956

Reverse primer 1      GCTGCCTTGCCGGAATTA  19
Template       1005 ..... 987

>KY827813.1 White spot syndrome virus strain CN04
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       217754 ..... 217773

Reverse primer 1      GCTGCCTTGCCGGAATTA  19
Template       217822 ..... 217804

>KT964173.1 White spot syndrome virus strain WSSV-Mx-F-2001 ORF167 gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       985 ..... 1004

Reverse primer 1      GCTGCCTTGCCGGAATTA  19
Template       1053 ..... 1035

>KX981593.1 White spot syndrome virus strain wssv-419-vellar-17-10-2014 VP664 (WSSV 419)
gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       449 ..... 468

```

```

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       517    ..... 499

>MF537411.1 White spot syndrome virus strain 3 hypothetical protein gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       696    ..... 715

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       764    ..... 746

>MF348242.1 White spot syndrome virus isolate 7 hypothetical protein gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       696    ..... 715

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       764    ..... 746

>KT894028.3 White spot syndrome virus strain IWV-MS1 hypothetical protein gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       752    ..... 771

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       820    ..... 802

>NC_003225.3 White spot syndrome virus strain CN01, complete genome
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       228184 ..... 228203

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       228252 ..... 228234

>KT995472.1 White spot syndrome virus strain CN01
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       228184 ..... 228203

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       228252 ..... 228234

>KT995471.1 White spot syndrome virus strain CN03
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       219863 ..... 219882

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       219931 ..... 219913

>KT995470.1 White spot syndrome virus strain CN02
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       224067 ..... 224086

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       224135 ..... 224117

>KJ773998.1 White spot syndrome virus isolate BAN_SH_AL-1_2014 VP664 gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       966    ..... 985

Reverse primer 1      GCTGCCTTGCCGAAATTA  19
Template       1034   ..... 1016

>KJ719075.1 White spot syndrome virus isolate BAN_ST-3_2013 VP664 gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20

```

```

Template      822 ..... 841

Reverse primer 1   GCTGCCTTGCCGGAAATTA 19
Template      890 ..... 872

>KF981443.1 Shrimp white spot syndrome virus isolate G85 WSSV419-like protein gene, partial
cds
product length = 69
Forward primer 1   TGGTCCCGTCCTCATCTCAG 20
Template      711 ..... 730

Reverse primer 1   GCTGCCTTGCCGGAAATTA 19
Template      779 ..... 761

>KF032716.1 White spot syndrome virus strain IR-Chabahar-Naseri-1 hypothetical protein gene,
partial cds
product length = 69
Forward primer 1   TGGTCCCGTCCTCATCTCAG 20
Template      929 ..... 948

Reverse primer 1   GCTGCCTTGCCGGAAATTA 19
Template      997 ..... 979

>KC417309.1 White spot syndrome virus isolate TAM2006 wsv378 gene, partial cds
product length = 69
Forward primer 1   TGGTCCCGTCCTCATCTCAG 20
Template      71 ..... 90

Reverse primer 1   GCTGCCTTGCCGGAAATTA 19
Template      139 ..... 121

>JX515788.1 White spot syndrome virus strain K-LV1, complete genome
product length = 69
Forward primer 1   TGGTCCCGTCCTCATCTCAG 20
Template      222567 ..... 222586

Reverse primer 1   GCTGCCTTGCCGGAAATTA 19
Template      222635 ..... 222617

>JX564899.1 Shrimp white spot syndrome virus isolate CM-VN1 nonfunctional NS protein gene,
partial sequence
product length = 69
Forward primer 1   TGGTCCCGTCCTCATCTCAG 20
Template      973 ..... 992

Reverse primer 1   GCTGCCTTGCCGGAAATTA 19
Template      1041 ..... 1023

>FJ356714.1 Shrimp white spot syndrome virus isolate chantaburi-5 hypothetical protein gene,
partial cds
product length = 69
Forward primer 1   TGGTCCCGTCCTCATCTCAG 20
Template      443 ..... 462

Reverse primer 1   GCTGCCTTGCCGGAAATTA 19
Template      511 ..... 493

>FJ356712.1 Shrimp white spot syndrome virus isolate chantaburi-3 hypothetical protein gene,
partial cds
product length = 69
Forward primer 1   TGGTCCCGTCCTCATCTCAG 20
Template      443 ..... 462

Reverse primer 1   GCTGCCTTGCCGGAAATTA 19
Template      511 ..... 493

>GU332708.1 Shrimp white spot syndrome virus strain Brazil genomic sequence
product length = 69
Forward primer 1   TGGTCCCGTCCTCATCTCAG 20
Template      237 ..... 218

```

```

Reverse primer 1      GCTGCCTTGCCGGAAATTA  19
Template       169    ..... 187

>FJ001816.1 Shrimp white spot syndrome virus strain GXBH001 genomic sequence
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       190    ..... 171

Reverse primer 1      GCTGCCTTGCCGGAAATTA  19
Template       122    ..... 140

>EF205279.1 Shrimp white spot syndrome virus isolate WSSV-VN2 nonfunctional wsv360 gene,
partial sequence
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       28     ..... 47

Reverse primer 1      GCTGCCTTGCCGGAAATTA  19
Template       96     ..... 78

>EF205278.1 Shrimp white spot syndrome virus isolate WSSV-VN1 nonfunctional wsv360 gene,
partial sequence
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       42     ..... 61

Reverse primer 1      GCTGCCTTGCCGGAAATTA  19
Template      110     ..... 92

>AY850066.1 Shrimp white spot syndrome virus isolate Taiwan WSSV419-like protein gene,
partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template      719     ..... 738

Reverse primer 1      GCTGCCTTGCCGGAAATTA  19
Template      787     ..... 769

>AF369029.2 White spot syndrome virus, complete genome
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template     274313    ..... 274332

Reverse primer 1      GCTGCCTTGCCGGAAATTA  19
Template     274381    ..... 274363

>AF361753.1 White spot syndrome virus, partial sequence
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template     971     ..... 990

Reverse primer 1      GCTGCCTTGCCGGAAATTA  19
Template    1039     ..... 1021

>AF440570.1 Shrimp white spot syndrome virus, complete genome
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template     260209    ..... 260228

Reverse primer 1      GCTGCCTTGCCGGAAATTA  19
Template     260277    ..... 260259

>AJ297947.1 White spot syndrome baculovirus DNA fragment
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template     752     ..... 771

Reverse primer 1      GCTGCCTTGCCGGAAATTA  19
Template     820     ..... 802

>U50923.1 Penaeus monodon nonoccluded baculovirus III SalI fragment genomic sequence

```

```

product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       1011  ..... 1030

Reverse primer 1      GCTGCCTTGCCGGAATTA  19
Template       1079  ..... 1061

>JN165707.1 Shrimp white spot syndrome virus isolate CAS08 hypothetical protein gene,
partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       463  ..... 482

Reverse primer 1      GCTGCCTTGCCGGAATTA  19
Template       531  ..C...C..... 513

>KF976716.1 Shrimp white spot syndrome virus isolate WSSV2 WSSV419-like protein gene,
partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       434  ...C.....A 453

Reverse primer 1      GCTGCCTTGCCGGAATTA  19
Template       502  ..... 484

>FJ356711.1 Shrimp white spot syndrome virus isolate chantaburi-2 hypothetical protein gene,
partial cds

product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       434  ...C.....A 453

Reverse primer 1      GCTGCCTTGCCGGAATTA  19
Template       502  ..... 484

>FJ356713.1 Shrimp white spot syndrome virus isolate chantaburi-4 hypothetical protein gene,
partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       443  ...C.....T.....A 462

Reverse primer 1      GCTGCCTTGCCGGAATTA  19
Template       511  ..... 493

>MT666093.1 White spot syndrome virus isolate WSSV_AR9 VP664 gene, partial cds
product length = 69
Forward primer 1      TGGTCCCGTCCTCATCTCAG  20
Template       694  ..... 713

Reverse primer 1      GCTGCCTTGCCGGAATTA  19
Template       756  -----..... 744

```

Search parameters and other details for primers RT-WSSV-F154 - RT-WSSV-R154 [41]

| | |
|--------------------------------------|-------|
| Number of Blast hits analyzed | 9819 |
| Entrez query | |
| Min total mismatches | 2 |
| Min 3' end mismatches | 2 |
| Defined 3' end region length | 5 |
| Mismatch threshold to ignore targets | 9 |
| Max target size | 4000 |
| Max number of Blast target sequences | 50000 |
| Blast E value | 30000 |
| Blast word size | 7 |
| Max candidate primer pairs | 500 |
| Min PCR product size | 60 |
| Max PCR product size | 1000 |
| Min Primer size | 15 |
| Opt Primer size | 20 |

| | |
|-----------------------|------|
| Max Primer size | 25 |
| Min Tm | 57 |
| Opt Tm | 60 |
| Max Tm | 63 |
| Max Tm difference | 3 |
| Repeat filter | AUTO |
| Low complexity filter | Yes |

Primer pair 4

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|----------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | CCAGTTCAGAATCGGACGTT | 20 | 57.92 | 50.00 | 5.00 | 2.00 |
| Rv | AAAGACGCCTACCCTGTTGA | 20 | 58.95 | 50.00 | 4.00 | 1.00 |

Products on target templates

>ON457602.1 White spot syndrome virus isolate GoC18, partial genome

product length = 154

Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 27109 27090

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 26956 26975

product length = 681

Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 7058 T....AA..GC.....A 7077

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 7738 ..C.TG...GC..... 7719

product length = 806

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 148363 G.GA..A.G...T..... 148344

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 147558 TT.C....AGG.....A. 147577

>AP027290.1 MAG: White spot syndrome virus Miyako2021 DNA, complete genome

product length = 154

Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 5647 5666

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 5800 5781

product length = 681

Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 25629 T....AA..GC.....A 25610

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 24949 ..C.TG...GC..... 24968

product length = 788

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 173601 TT.C....AGG.....A. 173582

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 172814 G.GA..A.G...T..... 172833

>AP027289.1 MAG: White spot syndrome virus 1-4 DNA, complete genome

```

product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      5647      .....  5666

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      5800      .....  5781

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      25633      T....AA..GC.....A  25614

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      24953      ..C.TG...GC.....  24972

product length = 788
Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      173880      TT.C....AGG.....A.  173861

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      173093      G.GA..A.G...T.....  173112

>AP027288.1 MAG: White spot syndrome virus 0722-1 DNA, complete genome
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      5647      .....  5666

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      5800      .....  5781

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      25684      T....AA..GC.....A  25665

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      25004      ..C.TG...GC.....  25023

product length = 806
Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      174830      TT.C....AGG.....A.  174811

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      174025      G.GA..A.G...T.....  174044

>AP027287.1 MAG: White spot syndrome virus E2 DNA, complete genome
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      5521      .....  5540

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      5674      .....  5655

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      25558      T....AA..GC.....A  25539

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      24878      ..C.TG...GC.....  24897

product length = 806
Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      175317      TT.C....AGG.....A.  175298

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      174512      G.GA..A.G...T.....  174531

```


>AP027286.1 MAG: White spot syndrome virus E1 DNA, complete genome

product length = 154

Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 5521 5540

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 5674 5655

product length = 681

Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 25558 T....AA..GC.....A 25539

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 24878 ..C.TG...GC..... 24897

product length = 806

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 175318 TT.C....AGG.....A. 175299

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 174513 G.GA..A.G...T..... 174532

>AP027285.1 MAG: White spot syndrome virus S14 DNA, complete genome

product length = 154

Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 5521 5540

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 5674 5655

product length = 681

Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 25558 T....AA..GC.....A 25539

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 24878 ..C.TG...GC..... 24897

product length = 806

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 175252 TT.C....AGG.....A. 175233

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 174447 G.GA..A.G...T..... 174466

>AP027284.1 MAG: White spot syndrome virus Pc2020 DNA, complete genome

product length = 154

Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 5395 5414

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 5548 5529

product length = 681

Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 25433 T....AA..GC.....A 25414

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 24753 ..C.TG...GC..... 24772

product length = 806

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 181224 TT.C....AGG.....A. 181205

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 180419 G.GA..A.G...T..... 180438

```

>AP027283.1 MAG: White spot syndrome virus 79 DNA, complete genome
product length = 154
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 5629 ..... 5648

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 5782 ..... 5763

product length = 681
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 25665 T....AA..GC.....A 25646

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 24985 ..C.TG...GC..... 25004

product length = 806
Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 178554 TT.C....AGG.....A. 178535

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 177749 G.GA..A.G...T..... 177768

>AP027282.1 MAG: White spot syndrome virus JP04 DNA, complete genome
product length = 154
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 5368 ..... 5387

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 5521 ..... 5502

product length = 681
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 25377 T....AA..GC.....A 25358

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 24697 ..C.TG...GC..... 24716

product length = 806
Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 181857 TT.C....AGG.....A. 181838

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 181052 G.GA..A.G...T..... 181071

>AP027281.1 MAG: White spot syndrome virus JP03 DNA, complete genome
product length = 154
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 5260 ..... 5279

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 5413 ..... 5394

product length = 681
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 25269 T....AA..GC.....A 25250

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 24589 ..C.TG...GC..... 24608

product length = 806
Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 182551 TT.C....AGG.....A. 182532

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20

```

```

Template          181746  G.GA..A.G...T.....  181765

>AP027280.1 MAG: White spot syndrome virus JP02 DNA, complete genome
product length = 154
Forward primer    1      CCAGTTCAGAATCGGACGTT  20
Template          5458  .....  5477

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          5611  .....  5592

product length = 681
Forward primer    1      CCAGTTCAGAATCGGACGTT  20
Template          25485  T....AA..GC.....A  25466

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          24805  ..C.TG...GC.....  24824

product length = 806
Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          181374  TT.C....AGG.....A.  181355

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          180569  G.GA..A.G...T.....  180588

>AP027279.1 MAG: White spot syndrome virus JP01B DNA, complete genome
product length = 154
Forward primer    1      CCAGTTCAGAATCGGACGTT  20
Template          5395  .....  5414

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          5548  .....  5529

product length = 681
Forward primer    1      CCAGTTCAGAATCGGACGTT  20
Template          25434  T....AA..GC.....A  25415

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          24754  ..C.TG...GC.....  24773

product length = 806
Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          181161  TT.C....AGG.....A.  181142

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          180356  G.GA..A.G...T.....  180375

>AP027278.1 MAG: White spot syndrome virus JP01A DNA, complete genome
product length = 154
Forward primer    1      CCAGTTCAGAATCGGACGTT  20
Template          5404  .....  5423

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          5557  .....  5538

product length = 681
Forward primer    1      CCAGTTCAGAATCGGACGTT  20
Template          25440  T....AA..GC.....A  25421

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          24760  ..C.TG...GC.....  24779

product length = 806
Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          181193  TT.C....AGG.....A.  181174

```

```

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       180388 G.GA..A.G...T..... 180407

>OM350393.2 White spot syndrome virus isolate WSSV-Peru, partial genome
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       3319 ..... 3338

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       3472 ..... 3453

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       23334 T....AA..GC.....A 23315

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       22654 ..C.TG...GC..... 22673

product length = 806
Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       173532 TT.C....AGG.....A. 173513

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       172727 G.GA..A.G...T..... 172746

>NC_075105.1 White spot syndrome virus, complete genome
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       5458 ..... 5477

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       5611 ..... 5592

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       25494 T....AA..GC.....A 25475

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       24814 ..C.TG...GC..... 24833

product length = 806
Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       181387 TT.C....AGG.....A. 181368

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       180582 G.GA..A.G...T..... 180601

>MW248108.1 MAG: White spot syndrome virus isolate CWG3
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       190345 ..... 190364

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       190498 ..... 190479

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       210390 T....AA..GC.....A 210371

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       209710 ..C.TG...GC..... 209729

product length = 806
Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       77565 TT.C....AGG.....A. 77546

```

```

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       76760  G.GA..A.G...T..... 76779

>MW248107.1 MAG: White spot syndrome virus isolate DBA1182
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       257877  ..... 257896

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       258030  ..... 258011

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       277925  T....AA..GC.....A 277906

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       277245  ..C.TG...GC..... 277264

product length = 932
Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       143232  TT.C....AGG.....A. 143213

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       142301  G.GA..A.G...T..... 142320

>MW248106.1 MAG: White spot syndrome virus isolate PGI
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       194097  ..... 194116

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       194250  ..... 194231

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       214130  T....AA..GC.....A 214111

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       213450  ..C.TG...GC..... 213469

product length = 806
Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       77466  TT.C....AGG.....A. 77447

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       76661  G.GA..A.G...T..... 76680

>MN840357.1 White spot syndrome virus isolate CN_95_DFPE
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       5458  ..... 5477

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       5611  ..... 5592

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       25494  T....AA..GC.....A 25475

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       24814  ..C.TG...GC..... 24833

product length = 806
Reverse primer 1      AAAGACGCCTACCCTGTTGA 20

```

```

Template      181374  TT.C....AGG.....A.  181355

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      180569  G.GA..A.G...T.....  180588

>MH883318.1 White spot syndrome virus isolate WSSV_CIBA_002
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      6208  .....  6227

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      6361  .....  6342

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      26163  T....AA..GC.....A  26144

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      25483  ..C.TG...GC.....  25502

product length = 932
Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      169838  TT.C....AGG.....A.  169819

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      168907  G.GA..A.G...T.....  168926

>KU216744.2 White spot syndrome virus strain MEX2008
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      56866  .....  56885

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      57019  .....  57000

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      76903  T....AA..GC.....A  76884

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      76223  ..C.TG...GC.....  76242

product length = 806
Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      232812  TT.C....AGG.....A.  232793

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      232007  G.GA..A.G...T.....  232026

>MG432482.1 Shrimp white spot syndrome virus isolate LG
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      867  .....  886

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      1020  .....  1001

product length = 806
Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      143348  TT.C....AGG.....A.  143329

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      142543  G.GA..A.G...T.....  142562

>MG432481.1 Shrimp white spot syndrome virus isolate LC1
product length = 154

```

```

Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      867      .....  886

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      1020     .....  1001

product length = 805
Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      163513   TT.C....AGG.....A.  163494

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      162709   G.GA..A.G...T.....  162728

>MG432480.1 Shrimp white spot syndrome virus isolate LC10
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      866      .....  885

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      1019     .....  1000

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      20880     T....AA..GC.....A  20861

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      20200     ..C.TG...GC.....  20219

product length = 805
Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      155280    TT.C....AGG.....A.  155261

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      154476    G.GA..A.G...T.....  154495

>MG432479.1 Shrimp white spot syndrome virus isolate JP
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      847      .....  866

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      1000     .....  981

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      20892     T....AA..GC.....A  20873

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      20212     ..C.TG...GC.....  20231

product length = 804
Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      161087    TT.C....AGG.....A.  161068

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      160284    G.GA..A.G...T.....  160303

>MG432478.1 Shrimp white spot syndrome virus isolate GVE05
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      780      .....  799

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      933      .....  914

```

```

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template      20816  T....AA..GC.....A 20797

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template      20136  ..C.TG...GC..... 20155

product length = 3936
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template      161549  GG...GTT...C.....G 161568

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template      165484  TT.C....AGG.....A. 165465

>MG432477.1 Shrimp white spot syndrome virus isolate DVI
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template      871    ..... 890

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template      1024   ..... 1005

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template      20886  T....AA..GC.....A 20867

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template      20206  ..C.TG...GC..... 20225

product length = 822
Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template      172984  TT.C....AGG.....A. 172965

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template      172163  G.GA..A.G...T..... 172182

>MG432476.1 Shrimp white spot syndrome virus isolate ACF4
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template      869    ..... 888

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template      1022   ..... 1003

product length = 805
Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template      162926  TT.C....AGG.....A. 162907

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template      162122  G.GA..A.G...T..... 162141

>MG432475.1 Shrimp white spot syndrome virus isolate ACF2
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template      867    ..... 886

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template      1020   ..... 1001

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template      20892  T....AA..GC.....A 20873

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template      20212  ..C.TG...GC..... 20231

```



```

product length = 804
Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      172825  TT.C....AGG.....A.  172806

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      172022  G.GA..A.G...T.....  172041

>MG432474.1 Shrimp white spot syndrome virus isolate AC1
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      867      .....  886

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      1020     .....  1001

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      20893    T....AA..GC.....A  20874

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      20213    ..C.TG...GC.....  20232

product length = 830
Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      154849   TT.C....AGG.....A.  154830

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      154020   G.GA..A.G...T.....  154039

>MH090824.1 White spot syndrome virus isolate WSSV-EC-15098
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      5206     .....  5225

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      5359     .....  5340

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      25227    T....AA..GC.....A  25208

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      24547    ..C.TG...GC.....  24566

product length = 806
Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      176022   TT.C....AGG.....A.  176003

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      175217   G.GA..A.G...T.....  175236

>MG702567.1 White spot syndrome virus isolate IN_AP4RU
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      108345   .....  108364

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      108498   .....  108479

product length = 676
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template      128117   T....AA..GC.....A  128098

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template      127442   ...CGT.G.CG.....  127461

```

```

product length = 796
Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 274591 TT.C....AGG.....A. 274572

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 273796 G.GA..A.G...T..... 273815

>MF784752.1 White spot syndrome virus isolate FSL39, partial genome
product length = 154
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 51101 ..... 51120

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 51254 ..... 51235

product length = 681
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 71158 T....AA..GC.....A 71139

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 70478 ..C.TG...GC..... 70497

product length = 806
Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 225201 TT.C....AGG.....A. 225182

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 224396 G.GA..A.G...T..... 224415

>MF768985.1 White spot syndrome virus isolate WSSV-AU
product length = 154
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 53349 ..... 53368

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 53502 ..... 53483

product length = 681
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 73382 T....AA..GC.....A 73363

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 72702 ..C.TG...GC..... 72721

product length = 806
Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 221128 TT.C....AGG.....A. 221109

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 220323 G.GA..A.G...T..... 220342

>KX686117.1 White spot syndrome virus strain PC
product length = 154
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 142899 ..... 142918

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 143052 ..... 143033

product length = 681
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 162939 T....AA..GC.....A 162920

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20

```

```

Template          162259  ..C.TG...GC.....  162278

product length = 788
Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          18218  TT.C....AGG.....A.  18199

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          17431  G.GA..A.G...T.....  17450

>KY827813.1 White spot syndrome virus strain CN04
product length = 154
Forward primer    1      CCAGTTCAGAATCGGACGTT  20
Template          3949  .....  3968

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          4102  .....  4083

product length = 681
Forward primer    1      CCAGTTCAGAATCGGACGTT  20
Template          23902  T....AA..GC.....A  23883

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          23222  ..C.TG...GC.....  23241

product length = 806
Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          171410  TT.C....AGG.....A.  171391

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          170605  G.GA..A.G...T.....  170624

>NC_003225.3 White spot syndrome virus strain CN01, complete genome
product length = 154
Forward primer    1      CCAGTTCAGAATCGGACGTT  20
Template          5458  .....  5477

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          5611  .....  5592

product length = 681
Forward primer    1      CCAGTTCAGAATCGGACGTT  20
Template          25494  T....AA..GC.....A  25475

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          24814  ..C.TG...GC.....  24833

product length = 806
Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          180189  TT.C....AGG.....A.  180170

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          179384  G.GA..A.G...T.....  179403

>KT995472.1 White spot syndrome virus strain CN01
product length = 154
Forward primer    1      CCAGTTCAGAATCGGACGTT  20
Template          5458  .....  5477

Reverse primer    1      AAAGACGCCTACCCTGTTGA  20
Template          5611  .....  5592

product length = 681
Forward primer    1      CCAGTTCAGAATCGGACGTT  20
Template          25494  T....AA..GC.....A  25475

```

```

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       24814  ..C.TG...GC..... 24833

product length = 806
Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       180189  TT.C....AGG.....A. 180170

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       179384  G.GA..A.G...T..... 179403

>KT995471.1 White spot syndrome virus strain CN03
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       4774   ..... 4793

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       4927   ..... 4908

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       24825  T....AA..GC.....A 24806

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       24145  ..C.TG...GC..... 24164

product length = 806
Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       173507  TT.C....AGG.....A. 173488

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       172702  G.GA..A.G...T..... 172721

>KT995470.1 White spot syndrome virus strain CN02
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       5053   ..... 5072

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       5206   ..... 5187

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       25085  T....AA..GC.....A 25066

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       24405  ..C.TG...GC..... 24424

product length = 791
Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       175810  TT.C....AGG.....A. 175791

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       175020  G.GA..A.G...T..... 175039

>KT957011.1 White spot syndrome virus strain Mx-F ORF31 gene, complete cds
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       486    ..... 505

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       639    ..... 620

>JX515788.1 White spot syndrome virus strain K-LV1, complete genome
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       851    ..... 870

```

```

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       1004  ..... 985

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       20911  T....AA..GC.....A 20892

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       20231  ..C.TG...GC..... 20250

product length = 806
Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       174090 TT.C....AGG.....A. 174071

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       173285 G.GA..A.G...T..... 173304

>DQ902656.1 Shrimp white spot syndrome virus major structural protein VP24 gene, complete
cds
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       268    ..... 249

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       115    ..... 134

>DQ681068.1 Shrimp white spot syndrome virus from India VP24 (VP24) gene, complete cds
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       292    ..... 273

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       139    ..... 158

>AY713373.1 Shrimp white spot syndrome virus isolate mexican nucleocapsid protein VP24 gene,
partial cds
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       245    ..... 226

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       92     ..... 111

>AY249458.1 Shrimp white spot syndrome virus isolate Indonesia 97 VP24 gene, complete cds
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       278    ..... 259

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       125    ..... 144

>AY249457.1 Shrimp white spot syndrome virus isolate Japan 98 VP24 gene, complete cds
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       278    ..... 259

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       125    ..... 144

>AY249456.1 Shrimp white spot syndrome virus isolate US 98/South Carolina VP24 gene,
complete cds
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT 20
Template       278    ..... 259

Reverse primer 1      AAAGACGCCTACCCTGTTGA 20
Template       125    ..... 144

```

```

>AY249455.1 Shrimp white spot syndrome virus isolate China 99/Qindao VP24 gene, complete cds
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template       278      ..... 259

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template       125      ..... 144

>AY249454.1 Shrimp white spot syndrome virus isolate China 95/Dalian VP24 gene, complete cds
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template       278      ..... 259

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template       125      ..... 144

>AY422229.1 Shrimp white spot syndrome virus Vp24 gene, complete cds
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template       268      ..... 249

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template       115      ..... 134

>AY220745.1 Shrimp white spot syndrome virus VP24 gene, complete cds
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template       268      ..... 249

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template       115      ..... 134

>AF402999.1 White spot syndrome virus ORF4441 gene, partial cds
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template       268      ..... 249

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template       115      ..... 134

>AF380840.1 White spot syndrome virus major virion protein VP24 gene, complete cds
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template       268      ..... 249

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template       115      ..... 134

>AF228518.1 White spot syndrome virus VP24 gene, complete cds
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template       488      ..... 469

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template       335      ..... 354

>AF369029.2 White spot syndrome virus, complete genome
product length = 154
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template       49807      ..... 49826

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template       49960      ..... 49941

product length = 681
Forward primer 1      CCAGTTCAGAATCGGACGTT  20
Template       69840      T....AA..GC.....A 69821

Reverse primer 1      AAAGACGCCTACCCTGTTGA  20
Template       69160      ..C.TG...GC..... 69179

```

```

product length = 806
Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 225558 TT.C....AGG.....A. 225539

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 224753 G.GA..A.G...T..... 224772

>AF440570.1 Shrimp white spot syndrome virus, complete genome
product length = 154
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 34439 ..... 34458

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 34592 ..... 34573

product length = 681
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 54476 T....AA..GC.....A 54457

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 53796 ..C.TG...GC..... 53815

product length = 806
Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 210352 TT.C....AGG.....A. 210333

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 209547 G.GA..A.G...T..... 209566

>DQ196431.1 Shrimp white spot syndrome virus from Iran VP24 gene, complete cds
product length = 154
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 275 ..... 256

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 122 .....A... 141

>MH883319.1 White spot syndrome virus isolate wssv_ciba_003
product length = 681
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 250549 T....AA..GC.....A 250530

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 249869 ..C.TG...GC..... 249888

product length = 932
Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 120725 TT.C....AGG.....A. 120706

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 119794 G.GA..A.G...T..... 119813

>AF343568.1 Shrimp white spot syndrome virus putative TATA-box binding protein gene,
complete cds; and unknown genes
product length = 806
Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 2229 G.GA..A.G...T..... 2210

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 1424 TT.C....AGG.....A. 1443

```

Search parameters and other details for primers WSSV341F - WSSV341R [42]

| | |
|--------------------------------------|-------|
| Number of Blast hits analyzed | 13699 |
| Entrez query | |
| Min total mismatches | 2 |
| Min 3' end mismatches | 2 |
| Defined 3' end region length | 5 |
| Mismatch threshold to ignore targets | 9 |
| Max target size | 4000 |
| Max number of Blast target sequences | 50000 |
| Blast E value | 30000 |
| Blast word size | 7 |
| Max candidate primer pairs | 500 |
| Min PCR product size | 60 |
| Max PCR product size | 1000 |
| Min Primer size | 15 |
| Opt Primer size | 20 |
| Max Primer size | 25 |
| Min Tm | 57 |

| | |
|-----------------------|------|
| Opt Tm | 60 |
| Max Tm | 63 |
| Max Tm difference | 3 |
| Repeat filter | AUTO |
| Low complexity filter | Yes |

Primer pair 5

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|----------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | TGGCTACATCTGCATTGCTC | 20 | 58.33 | 50.00 | 5.00 | 1.00 |
| Rv | TAGAGACGTGGCTGGAGAGG | 20 | 60.39 | 60.00 | 4.00 | 0.00 |

Products on target templates

>ON457602.1 White spot syndrome virus isolate GoC18, partial genome

```
product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      159759 ..... 159778
```

```
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      160099 ..... 160080
```

```
product length = 3368
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      159759 ..... 159778
```

```
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      163126 .T.GACT.....A 163107
```

```
product length = 1328
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      278913 GC...TA....GA..... 278894
```

```
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      277586 .GCG.CG.G..... 277605
```

>AP027290.1 MAG: White spot syndrome virus Miyako2021 DNA, complete genome

```
product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      161424 ..... 161405
```

```
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      161084 ..... 161103
```

```
product length = 3365
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      158060 .T.GACT.....A 158079
```

```
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      161424 ..... 161405
```

```
product length = 1322
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      44985 .GCG.CG.G..... 44966
```

```
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      43664 GC...TA....GA..... 43683
```

>AP027289.1 MAG: White spot syndrome virus 1-4 DNA, complete genome

```
product length = 341
```

| | | | |
|----------------|--------|----------------------|--------|
| Forward primer | 1 | TGGCTACATCTGCATTGCTC | 20 |
| Template | 161697 | ..... | 161678 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TAGAGACGTGGCTGGAGAGG | 20 |
| Template | 161357 | ..... | 161376 |

product length = 3368

| | | | |
|----------------|--------|----------------------|--------|
| Forward primer | 1 | TGGCTACATCTGCATTGCTC | 20 |
| Template | 158330 | .T.GACT.....A | 158349 |

| | | | |
|----------------|--------|----------------------|--------|
| Forward primer | 1 | TGGCTACATCTGCATTGCTC | 20 |
| Template | 161697 | ..... | 161678 |

product length = 1318

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TAGAGACGTGGCTGGAGAGG | 20 |
| Template | 44985 | .GCG.CG.G..... | 44966 |

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TAGAGACGTGGCTGGAGAGG | 20 |
| Template | 43668 | GC...TA....GA..... | 43687 |

>AP027288.1 MAG: White spot syndrome virus 0722-1 DNA, complete genome

product length = 341

| | | | |
|----------------|--------|----------------------|--------|
| Forward primer | 1 | TGGCTACATCTGCATTGCTC | 20 |
| Template | 162626 | ..... | 162607 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TAGAGACGTGGCTGGAGAGG | 20 |
| Template | 162286 | ..... | 162305 |

product length = 3368

| | | | |
|----------------|--------|----------------------|--------|
| Forward primer | 1 | TGGCTACATCTGCATTGCTC | 20 |
| Template | 159259 | .T.GACT.....A | 159278 |

| | | | |
|----------------|--------|----------------------|--------|
| Forward primer | 1 | TGGCTACATCTGCATTGCTC | 20 |
| Template | 162626 | ..... | 162607 |

product length = 1336

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TAGAGACGTGGCTGGAGAGG | 20 |
| Template | 44616 | .GCG.CG.G..... | 44597 |

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TAGAGACGTGGCTGGAGAGG | 20 |
| Template | 43281 | GC...TA....GA..... | 43300 |

>AP027287.1 MAG: White spot syndrome virus E2 DNA, complete genome

product length = 341

| | | | |
|----------------|--------|----------------------|--------|
| Forward primer | 1 | TGGCTACATCTGCATTGCTC | 20 |
| Template | 163113 | ..... | 163094 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TAGAGACGTGGCTGGAGAGG | 20 |
| Template | 162773 | ..... | 162792 |

product length = 3368

| | | | |
|----------------|--------|----------------------|--------|
| Forward primer | 1 | TGGCTACATCTGCATTGCTC | 20 |
| Template | 159746 | .T.GACT.....A | 159765 |

| | | | |
|----------------|--------|----------------------|--------|
| Forward primer | 1 | TGGCTACATCTGCATTGCTC | 20 |
| Template | 163113 | ..... | 163094 |

product length = 1336

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TAGAGACGTGGCTGGAGAGG | 20 |
| Template | 44788 | .GCG.CG.G..... | 44769 |

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TAGAGACGTGGCTGGAGAGG | 20 |
| Template | 43453 | GC...TA....GA..... | 43472 |

>AP027286.1 MAG: White spot syndrome virus E1 DNA, complete genome

```
product length = 341
Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        163114 ..... 163095

Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
Template        162774 ..... 162793
```

```
product length = 3368
Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        159747 .T.GACT.....A 159766

Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        163114 ..... 163095
```

```
product length = 1336
Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
Template        44788 .GCG.CG.G..... 44769

Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
Template        43453 GC...TA....GA..... 43472
```

>AP027285.1 MAG: White spot syndrome virus S14 DNA, complete genome

```
product length = 341
Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        163048 ..... 163029

Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
Template        162708 ..... 162727
```

```
product length = 3368
Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        159681 .T.GACT.....A 159700

Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        163048 ..... 163029
```

```
product length = 1335
Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
Template        44788 .GCG.CG.G..... 44769

Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
Template        43454 GC...TA....GA..... 43473
```

>AP027284.1 MAG: White spot syndrome virus Pc2020 DNA, complete genome

```
product length = 341
Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        169020 ..... 169001

Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
Template        168680 ..... 168699
```

```
product length = 3368
Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        165653 .T.GACT.....A 165672

Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        169020 ..... 169001
```

```
product length = 1316
Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
```

```

Template          46264 .GCG.CG.G..... 46245

Reverse primer    1      TAGAGACGTGGCTGGAGAGG 20
Template          44949 GC...TA....GA..... 44968

>AP027283.1 MAG: White spot syndrome virus 79 DNA, complete genome

product length = 341
Forward primer    1      TGGCTACATCTGCATTGCTC 20
Template          166350 ..... 166331

Reverse primer    1      TAGAGACGTGGCTGGAGAGG 20
Template          166010 ..... 166029

product length = 3368
Forward primer    1      TGGCTACATCTGCATTGCTC 20
Template          162983 .T.GACT.....A 163002

Forward primer    1      TGGCTACATCTGCATTGCTC 20
Template          166350 ..... 166331

product length = 1315
Reverse primer    1      TAGAGACGTGGCTGGAGAGG 20
Template          43869 .GCG.CG.G..... 43850

Reverse primer    1      TAGAGACGTGGCTGGAGAGG 20
Template          42555 GC...TA....GA..... 42574

>AP027282.1 MAG: White spot syndrome virus JP04 DNA, complete genome

product length = 341
Forward primer    1      TGGCTACATCTGCATTGCTC 20
Template          169653 ..... 169634

Reverse primer    1      TAGAGACGTGGCTGGAGAGG 20
Template          169313 ..... 169332

product length = 3368
Forward primer    1      TGGCTACATCTGCATTGCTC 20
Template          166286 .T.GACT.....A 166305

Forward primer    1      TGGCTACATCTGCATTGCTC 20
Template          169653 ..... 169634

product length = 1325
Reverse primer    1      TAGAGACGTGGCTGGAGAGG 20
Template          47316 .GCG.CG.G..... 47297

Reverse primer    1      TAGAGACGTGGCTGGAGAGG 20
Template          45992 GC...TA....GA..... 46011

>AP027281.1 MAG: White spot syndrome virus JP03 DNA, complete genome

product length = 341
Forward primer    1      TGGCTACATCTGCATTGCTC 20
Template          170347 ..... 170328

Reverse primer    1      TAGAGACGTGGCTGGAGAGG 20
Template          170007 ..... 170026

product length = 3368
Forward primer    1      TGGCTACATCTGCATTGCTC 20
Template          166980 .T.GACT.....A 166999

Forward primer    1      TGGCTACATCTGCATTGCTC 20
Template          170347 ..... 170328

```

```

product length = 1316
Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 47216 .GCG.CG.G..... 47197

Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 45901 GC...TA....GA..... 45920

```

>AP027280.1 MAG: White spot syndrome virus JP02 DNA, complete genome

```

product length = 341
Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 169170 ..... 169151

Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 168830 ..... 168849

```

```

product length = 3368
Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 165803 .T.GACT.....A 165822

Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 169170 ..... 169151

```

```

product length = 1313
Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 46342 .GCG.CG.G..... 46323

Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 45030 GC...TA....GA..... 45049

```

>AP027279.1 MAG: White spot syndrome virus JP01B DNA, complete genome

```

product length = 341
Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 168957 ..... 168938

Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 168617 ..... 168636

```

```

product length = 3368
Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 165590 .T.GACT.....A 165609

Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 168957 ..... 168938

```

```

product length = 1313
Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 46293 .GCG.CG.G..... 46274

Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 44981 GC...TA....GA..... 45000

```

>AP027278.1 MAG: White spot syndrome virus JP01A DNA, complete genome

```

product length = 341
Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 168989 ..... 168970

Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 168649 ..... 168668

```

```

product length = 3368
Forward primer 1 TGGCTACATCTGCATTGCTC 20

```

```

Template      165622  .T.GACT.....A 165641
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      168989  ..... 168970

```

```

product length = 1313
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      46297  .GCG.CG.G..... 46278

```

```

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      44985  GC...TA....GA..... 45004

```

>OM350393.2 White spot syndrome virus isolate WSSV-Peru, partial genome

```

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      161367  ..... 161348

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      161027  ..... 161046

```

```

product length = 3368
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      158000  .T.GACT.....A 158019

```

```

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      161367  ..... 161348

```

```

product length = 1321
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      43668  .GCG.CG.G..... 43649

```

```

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      42348  GC...TA....GA..... 42367

```

>NC_075105.1 White spot syndrome virus, complete genome

```

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      169183  ..... 169164

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      168843  ..... 168862

```

```

product length = 3368
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      165816  .T.GACT.....A 165835

```

```

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      169183  ..... 169164

```

```

product length = 1313
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      46351  .GCG.CG.G..... 46332

```

```

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      45039  GC...TA....GA..... 45058

```

>MW248108.1 MAG: White spot syndrome virus isolate CWG3

```

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      65364  ..... 65345

```

```

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      65024  ..... 65043

```

```

product length = 3368
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      61997  .T.GACT.....A 62016

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      65364  ..... 65345

product length = 1382
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      231297  .GCG.CG.G..... 231278

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      229916  GC...TA....GA..... 229935

>MW248107.1 MAG: White spot syndrome virus isolate DBA1182

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      130902  ..... 130883

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      130562  ..... 130581

product length = 3365
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      127538  .T.GACT.....A 127557

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      130902  ..... 130883

product length = 1334
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      15886  .GCG.CG.G..... 15867

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      14553  GC...TA....GA..... 14572

>MW248106.1 MAG: White spot syndrome virus isolate PG1

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      65265  ..... 65246

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      64925  ..... 64944

product length = 3368
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      61898  .T.GACT.....A 61917

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      65265  ..... 65246

product length = 1319
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      234666  .GCG.CG.G..... 234647

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      233348  GC...TA....GA..... 233367

>MN840357.1 White spot syndrome virus isolate CN_95_DFPE

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20

```

```

Template          169170  ..... 169151

Reverse primer    1      TAGAGACGTGGCTGGAGAGG  20
Template          168830  ..... 168849

product length = 3368
Forward primer    1      TGGCTACATCTGCATTGCTC  20
Template          165803  .T.GACT.....A 165822

Forward primer    1      TGGCTACATCTGCATTGCTC  20
Template          169170  ..... 169151

product length = 1313
Reverse primer    1      TAGAGACGTGGCTGGAGAGG  20
Template          46349  .GCG.CG.G..... 46330

Reverse primer    1      TAGAGACGTGGCTGGAGAGG  20
Template          45037  GC...TA....GA..... 45056

>MH883319.1 White spot syndrome virus isolate wssv_ciba_003

product length = 341
Forward primer    1      TGGCTACATCTGCATTGCTC  20
Template          108395  ..... 108376

Reverse primer    1      TAGAGACGTGGCTGGAGAGG  20
Template          108055  ..... 108074

product length = 3368
Forward primer    1      TGGCTACATCTGCATTGCTC  20
Template          105028  .T.GACT.....A 105047

Forward primer    1      TGGCTACATCTGCATTGCTC  20
Template          108395  ..... 108376

product length = 1317
Reverse primer    1      TAGAGACGTGGCTGGAGAGG  20
Template          271412  .GCG.CG.G..... 271393

Reverse primer    1      TAGAGACGTGGCTGGAGAGG  20
Template          270096  GC...TA....GA..... 270115

>MH883318.1 White spot syndrome virus isolate WSSV_CIBA_002

product length = 341
Forward primer    1      TGGCTACATCTGCATTGCTC  20
Template          157516  ..... 157497

Reverse primer    1      TAGAGACGTGGCTGGAGAGG  20
Template          157176  ..... 157195

product length = 3365
Forward primer    1      TGGCTACATCTGCATTGCTC  20
Template          154152  .T.GACT.....A 154171

Forward primer    1      TGGCTACATCTGCATTGCTC  20
Template          157516  ..... 157497

product length = 1344
Reverse primer    1      TAGAGACGTGGCTGGAGAGG  20
Template          45806  .GCG.CG.G..... 45787

Reverse primer    1      TAGAGACGTGGCTGGAGAGG  20
Template          44463  GC...TA....GA..... 44482

```



```

>KU216744.2 White spot syndrome virus strain MEX2008

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       220608 ..... 220589

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       220268 ..... 220287

product length = 3371
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       217238 .T.GACT.....A 217257

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       220608 ..... 220589

product length = 1334
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       97788 .GCG.CG.G..... 97769

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       96455 GC...TA....GA..... 96474

>MG432482.1 Shrimp white spot syndrome virus isolate LG

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       131150 ..... 131131

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       130810 ..... 130829

product length = 3371
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       127780 .T.GACT.....A 127799

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       131150 ..... 131131

product length = 1317
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       40007 .GCG.CG.G..... 39988

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       38691 GC...TA....GA..... 38710

>MG432481.1 Shrimp white spot syndrome virus isolate LC1

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       151314 ..... 151295

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       150974 ..... 150993

product length = 3371
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       147944 .T.GACT.....A 147963

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       151314 ..... 151295

product length = 1230
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       31924 .GCG.CG.G..... 31905

```

```

Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template       30695  GC...TA....GA.....  30714

>MG432480.1 Shrimp white spot syndrome virus isolate LC10

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template       143083  .....  143064

Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template       142743  .....  142762

product length = 3369
Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template       139715  .T.GACT.....A  139734

Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template       143083  .....  143064

>MG432479.1 Shrimp white spot syndrome virus isolate JP

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template       148892  .....  148873

Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template       148552  .....  148571

product length = 3370
Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template       145523  .T.GACT.....A  145542

Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template       148892  .....  148873

product length = 1327
Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template       41679  .GCG.CG.G.....  41660

Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template       40353  GC...TA....GA.....  40372

>MG432478.1 Shrimp white spot syndrome virus isolate GVE05

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template       154464  .....  154445

Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template       154124  .....  154143

product length = 3369
Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template       151096  .T.GACT.....A  151115

Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template       154464  .....  154445

product length = 1217
Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template       41028  .GCG.CG.G.....  41009

Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template       39812  GC...TA....GA.....  39831

```

>MG432477.1 Shrimp white spot syndrome virus isolate DVI

```
product length = 341
Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        160775 ..... 160756

Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
Template        160435 ..... 160454
```

```
product length = 3371
Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        157405 .T.GACT.....A 157424

Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        160775 ..... 160756
```

```
product length = 1309
Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
Template        41734 .GCG.CG.G..... 41715
```

```
Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
Template        40426 GC...TA....GA..... 40445
```

>MG432476.1 Shrimp white spot syndrome virus isolate ACF4

```
product length = 341
Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        150734 ..... 150715

Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
Template        150394 ..... 150413
```

```
product length = 3371
Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        147364 .T.GACT.....A 147383

Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        150734 ..... 150715
```

```
product length = 1267
Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
Template        39284 .GCG.CG.G..... 39265
```

```
Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
Template        38018 GC...TA....GA..... 38037
```

>MG432475.1 Shrimp white spot syndrome virus isolate ACF2

```
product length = 341
Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        160634 ..... 160615

Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
Template        160294 ..... 160313
```

```
product length = 3367
Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        157268 .T.GACT.....A 157287

Forward primer  1      TGGCTACATCTGCATTGCTC  20
Template        160634 ..... 160615
```

```
product length = 1310
Reverse primer  1      TAGAGACGTGGCTGGAGAGG  20
Template        41739 .GCG.CG.G..... 41720
```

```

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      40430 GC...TA....GA..... 40449

>MG432474.1 Shrimp white spot syndrome virus isolate AC1

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      142633 ..... 142614

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      142293 ..... 142312

product length = 3370
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      139264 .T.GACT.....A 139283

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      142633 ..... 142614

product length = 1314
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      41747 .GCG.CG.G..... 41728

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      40434 GC...TA....GA..... 40453

>MH090824.1 White spot syndrome virus isolate WSSV-EC-15098

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      163818 ..... 163799

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      163478 ..... 163497

product length = 3368
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      160451 .T.GACT.....A 160470

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      163818 ..... 163799

product length = 1315
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      45473 .GCG.CG.G..... 45454

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      44159 GC...TA....GA..... 44178

>MF784752.1 White spot syndrome virus isolate FSL39, partial genome

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      213003 ..... 212984

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      212663 ..... 212682

product length = 3368
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      209636 .T.GACT.....A 209655

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      213003 ..... 212984

```

```

product length = 1286
Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 91619 .GCG.CG.G..... 91600

Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 90334 GC...TA....GA..... 90353

>MF768985.1 White spot syndrome virus isolate WSSV-AU

product length = 341
Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 208924 ..... 208905

Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 208584 ..... 208603

product length = 3368
Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 205557 .T.GACT.....A 205576

Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 208924 ..... 208905

product length = 1329
Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 92593 .GCG.CG.G..... 92574

Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 91265 GC...TA....GA..... 91284

>KX686117.1 White spot syndrome virus strain PC

product length = 341
Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 6035 ..... 6016

Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 5695 ..... 5714

product length = 3369
Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 2667 .T.GACT.....A 2686

Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 6035 ..... 6016

product length = 1321
Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 184643 .GCG.CG.G..... 184624

Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 183323 GC...TA....GA..... 183342

>KY827813.1 White spot syndrome virus strain CN04

product length = 341
Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 159206 ..... 159187

Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 158866 ..... 158885

product length = 3368
Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 155839 .T.GACT.....A 155858

```

```

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       159206 ..... 159187

product length = 1333
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       44146  .GCG.CG.G..... 44127

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       42814  GC...TA....GA..... 42833

>NC_003225.3 White spot syndrome virus strain CN01, complete genome

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       167985 ..... 167966

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       167645 ..... 167664

product length = 3368
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       164618  .T.GACT.....A 164637

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       167985 ..... 167966

product length = 1310
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       45735  .GCG.CG.G..... 45716

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       44426  GC...TA....GA..... 44445

>KT995472.1 White spot syndrome virus strain CN01

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       167985 ..... 167966

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       167645 ..... 167664

product length = 3368
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       164618  .T.GACT.....A 164637

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       167985 ..... 167966

product length = 1310
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       45735  .GCG.CG.G..... 45716

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       44426  GC...TA....GA..... 44445

>KT995471.1 White spot syndrome virus strain CN03

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template       161303 ..... 161284

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template       160963 ..... 160982

```

```

product length = 3368
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      157936  .T.GACT.....A 157955

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      161303  ..... 161284

product length = 1322
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      43608  .GCG.CG.G..... 43589

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      42287  GC...TA....GA..... 42306

>KT995470.1 White spot syndrome virus strain CN02

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      163625  ..... 163606

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      163285  ..... 163304

product length = 3368
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      160258  .T.GACT.....A 160277

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      163625  ..... 163606

product length = 1312
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      45948  .GCG.CG.G..... 45929

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      44637  GC...TA....GA..... 44656

>JX515788.1 White spot syndrome virus strain K-LV1, complete genome

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      161886  ..... 161867

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      161546  ..... 161565

product length = 3368
Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      158519  .T.GACT.....A 158538

Forward primer 1      TGGCTACATCTGCATTGCTC 20
Template      161886  ..... 161867

product length = 1308
Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      41785  .GCG.CG.G..... 41766

Reverse primer 1      TAGAGACGTGGCTGGAGAGG 20
Template      40478  GC...TA....GA..... 40497

>AF343568.1 Shrimp white spot syndrome virus putative TATA-box binding protein gene,
complete cds; and unknown genes

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC 20

```

```

Template      13628 ..... 13647

Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template      13968 ..... 13949

>AF369029.2 White spot syndrome virus, complete genome

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template      213357 ..... 213338

Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template      213017 ..... 213036

product length = 3368
Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template      209990 .T.GACT.....A 210009

Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template      213357 ..... 213338

product length = 1310
Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template      90692 .GCG.CG.G..... 90673

Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template      89383 GC...TA....GA..... 89402

>AF295123.1 White spot syndrome virus genomic sequence

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template      862 ..... 881

Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template      1202 ..... 1183

>AF440570.1 Shrimp white spot syndrome virus, complete genome

product length = 341
Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template      198151 ..... 198132

Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template      197811 ..... 197830

product length = 3368
Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template      194784 .T.GACT.....A 194803

Forward primer 1      TGGCTACATCTGCATTGCTC  20
Template      198151 ..... 198132

product length = 1310
Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template      75326 .GCG.CG.G..... 75307

Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template      74017 GC...TA....GA..... 74036

>MG702567.1 White spot syndrome virus isolate IN_AP4RU

product length = 1295
Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20
Template      148161 .GCG.CG.G..... 148142

Reverse primer 1      TAGAGACGTGGCTGGAGAGG  20

```


Template 146867 GC...TA....GA..... 146886

Search parameters and other details for primers P1 – P2 [43]

| | |
|--------------------------------------|-------|
| Number of Blast hits analyzed | 21128 |
| Entrez query | |
| Min total mismatches | 2 |
| Min 3' end mismatches | 2 |
| Defined 3' end region length | 5 |
| Mismatch threshold to ignore targets | 9 |
| Max target size | 4000 |
| Max number of Blast target sequences | 50000 |
| Blast E value | 30000 |
| Blast word size | 7 |
| Max candidate primer pairs | 500 |
| Min PCR product size | 60 |
| Max PCR product size | 1000 |
| Min Primer size | 15 |
| Opt Primer size | 20 |
| Max Primer size | 25 |
| Min Tm | 57 |
| Opt Tm | 60 |

| | |
|-----------------------|------|
| Max Tm | 63 |
| Max Tm difference | 3 |
| Repeat filter | AUTO |
| Low complexity filter | Yes |

Primer pair 6

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|----------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | ATCATGGCTGCTTCACAGAC | 20 | 58.25 | 50.00 | 4.00 | 2.00 |
| Rv | GGCTGGAGAGGACAAGACAT | 20 | 59.09 | 55.00 | 2.00 | 2.00 |

Products on target templates

>ON457602.1 White spot syndrome virus isolate GoC18, partial genome

product length = 982

Forward primer 1 ATCATGGCTGCTTCACAGAC 20
 Template 159109 159128

Reverse primer 1 GGCTGGAGAGGACAAGACAT 20
 Template 160090 160071

>AP027290.1 MAG: White spot syndrome virus Miyako2021 DNA, complete genome

product length = 982

Forward primer 1 ATCATGGCTGCTTCACAGAC 20
 Template 162074 162055

Reverse primer 1 GGCTGGAGAGGACAAGACAT 20
 Template 161093 161112

>AP027289.1 MAG: White spot syndrome virus 1-4 DNA, complete genome

product length = 982

Forward primer 1 ATCATGGCTGCTTCACAGAC 20
 Template 162347 162328

Reverse primer 1 GGCTGGAGAGGACAAGACAT 20
 Template 161366 161385

>AP027288.1 MAG: White spot syndrome virus 0722-1 DNA, complete genome

product length = 982

Forward primer 1 ATCATGGCTGCTTCACAGAC 20
 Template 163276 163257

Reverse primer 1 GGCTGGAGAGGACAAGACAT 20
 Template 162295 162314

>AP027287.1 MAG: White spot syndrome virus E2 DNA, complete genome

product length = 982

Forward primer 1 ATCATGGCTGCTTCACAGAC 20
 Template 163763 163744

Reverse primer 1 GGCTGGAGAGGACAAGACAT 20
 Template 162782 162801

>AP027286.1 MAG: White spot syndrome virus E1 DNA, complete genome

product length = 982

Forward primer 1 ATCATGGCTGCTTCACAGAC 20
 Template 163764 163745

Reverse primer 1 GGCTGGAGAGGACAAGACAT 20
 Template 162783 162802

>AP027285.1 MAG: White spot syndrome virus S14 DNA, complete genome

```

product length = 982
Forward primer 1      ATCATGGCTGCTTCACAGAC 20
Template       163698 ..... 163679

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       162717 ..... 162736

>AP027284.1 MAG: White spot syndrome virus Pc2020 DNA, complete genome

product length = 982
Forward primer 1      ATCATGGCTGCTTCACAGAC 20
Template       169670 ..... 169651

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       168689 ..... 168708

>AP027283.1 MAG: White spot syndrome virus 79 DNA, complete genome

product length = 982
Forward primer 1      ATCATGGCTGCTTCACAGAC 20
Template       167000 ..... 166981

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       166019 ..... 166038

>AP027282.1 MAG: White spot syndrome virus JP04 DNA, complete genome

product length = 982
Forward primer 1      ATCATGGCTGCTTCACAGAC 20
Template       170303 ..... 170284

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       169322 ..... 169341

>AP027281.1 MAG: White spot syndrome virus JP03 DNA, complete genome

product length = 982
Forward primer 1      ATCATGGCTGCTTCACAGAC 20
Template       170997 ..... 170978

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       170016 ..... 170035

>AP027280.1 MAG: White spot syndrome virus JP02 DNA, complete genome

product length = 982
Forward primer 1      ATCATGGCTGCTTCACAGAC 20
Template       169820 ..... 169801

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       168839 ..... 168858

>AP027279.1 MAG: White spot syndrome virus JP01B DNA, complete genome

product length = 982
Forward primer 1      ATCATGGCTGCTTCACAGAC 20
Template       169607 ..... 169588

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       168626 ..... 168645

>AP027278.1 MAG: White spot syndrome virus JP01A DNA, complete genome

product length = 982
Forward primer 1      ATCATGGCTGCTTCACAGAC 20
Template       169639 ..... 169620

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       168658 ..... 168677

```

>OM350393.2 White spot syndrome virus isolate WSSV-Peru, partial genome

```
product length = 979
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        162014 ..... 161995

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20
Template        161036 ..... 161055
```

>NC_075105.1 White spot syndrome virus, complete genome

```
product length = 982
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        169833 ..... 169814

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20
Template        168852 ..... 168871
```

>MW248108.1 MAG: White spot syndrome virus isolate CWG3

```
product length = 982
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        66014 ..... 65995

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20
Template        65033 ..... 65052
```

>MW248107.1 MAG: White spot syndrome virus isolate DBA1182

```
product length = 982
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        131552 ..... 131533

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20
Template        130571 ..... 130590
```

>MW248106.1 MAG: White spot syndrome virus isolate PG1

```
product length = 982
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        65915 ..... 65896

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20
Template        64934 ..... 64953
```

>MN840357.1 White spot syndrome virus isolate CN_95_DFPE

```
product length = 982
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        169820 ..... 169801

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20
Template        168839 ..... 168858
```

>MH883319.1 White spot syndrome virus isolate wssv_ciba_003

```
product length = 982
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        109045 ..... 109026

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20
Template        108064 ..... 108083
```

>MH883318.1 White spot syndrome virus isolate WSSV_CIBA_002

```
product length = 982
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        158166 ..... 158147

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20
Template        157185 ..... 157204
```

```

>KU216744.2 White spot syndrome virus strain MEX2008

product length = 982
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        221258 ..... 221239

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20
Template        220277 ..... 220296

>MG432482.1 Shrimp white spot syndrome virus isolate LG

product length = 982
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        131800 ..... 131781

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20
Template        130819 ..... 130838

>MG432481.1 Shrimp white spot syndrome virus isolate LC1

product length = 985
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        151967 ..... 151948

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20
Template        150983 ..... 151002

>MG432480.1 Shrimp white spot syndrome virus isolate LC10

product length = 985
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        143736 ..... 143717

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20
Template        142752 ..... 142771

>MG432479.1 Shrimp white spot syndrome virus isolate JP

product length = 982
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        149542 ..... 149523

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20
Template        148561 ..... 148580

>MG432478.1 Shrimp white spot syndrome virus isolate GVE05

product length = 982
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        155114 ..... 155095

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20
Template        154133 ..... 154152

>MG432477.1 Shrimp white spot syndrome virus isolate DVI

product length = 982
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        161425 ..... 161406

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20
Template        160444 ..... 160463

>MG432476.1 Shrimp white spot syndrome virus isolate ACF4

product length = 985
Forward primer  1      ATCATGGCTGCTTCACAGAC  20
Template        151387 ..... 151368

Reverse primer  1      GGCTGGAGAGGACAAGACAT  20

```

```

Template          150403 ..... 150422

>MG432475.1 Shrimp white spot syndrome virus isolate ACF2

product length = 982
Forward primer   1          ATCATGGCTGCTTCACAGAC  20
Template         161284 ..... 161265

Reverse primer   1          GGCTGGAGAGGACAAGACAT  20
Template         160303 ..... 160322

>MG432474.1 Shrimp white spot syndrome virus isolate AC1

product length = 982
Forward primer   1          ATCATGGCTGCTTCACAGAC  20
Template         143283 ..... 143264

Reverse primer   1          GGCTGGAGAGGACAAGACAT  20
Template         142302 ..... 142321

>MH090824.1 White spot syndrome virus isolate WSSV-EC-15098

product length = 982
Forward primer   1          ATCATGGCTGCTTCACAGAC  20
Template         164468 ..... 164449

Reverse primer   1          GGCTGGAGAGGACAAGACAT  20
Template         163487 ..... 163506

>MG702567.1 White spot syndrome virus isolate IN_AP4RU

product length = 962
Forward primer   1          ATCATGGCTGCTTCACAGAC  20
Template         263199 ..... 263180

Reverse primer   1          GGCTGGAGAGGACAAGACAT  20
Template         262238 ..... 262257

>MF784752.1 White spot syndrome virus isolate FSL39, partial genome

product length = 982
Forward primer   1          ATCATGGCTGCTTCACAGAC  20
Template         213653 ..... 213634

Reverse primer   1          GGCTGGAGAGGACAAGACAT  20
Template         212672 ..... 212691

>MF768985.1 White spot syndrome virus isolate WSSV-AU

product length = 982
Forward primer   1          ATCATGGCTGCTTCACAGAC  20
Template         209574 ..... 209555

Reverse primer   1          GGCTGGAGAGGACAAGACAT  20
Template         208593 ..... 208612

>KX686117.1 White spot syndrome virus strain PC

product length = 979
Forward primer   1          ATCATGGCTGCTTCACAGAC  20
Template         6682 ..... 6663

Reverse primer   1          GGCTGGAGAGGACAAGACAT  20
Template         5704 ..... 5723

>KY827813.1 White spot syndrome virus strain CN04

product length = 982
Forward primer   1          ATCATGGCTGCTTCACAGAC  20
Template         159856 ..... 159837

```

```

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       158875 ..... 158894

>NC_003225.3 White spot syndrome virus strain CN01, complete genome

product length = 982
Forward primer 1      ATCATGGCTGCTTCACAGAC 20
Template       168635 ..... 168616

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       167654 ..... 167673

>KT995472.1 White spot syndrome virus strain CN01

product length = 982
Forward primer 1      ATCATGGCTGCTTCACAGAC 20
Template       168635 ..... 168616

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       167654 ..... 167673

>KT995471.1 White spot syndrome virus strain CN03

product length = 982
Forward primer 1      ATCATGGCTGCTTCACAGAC 20
Template       161953 ..... 161934

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       160972 ..... 160991

>KT995470.1 White spot syndrome virus strain CN02

product length = 981
Forward primer 1      ATCATGGCTGCTTCACAGAC 20
Template       164274 ..... 164255

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       163294 ..... 163313

>JX515788.1 White spot syndrome virus strain K-LV1, complete genome

product length = 982
Forward primer 1      ATCATGGCTGCTTCACAGAC 20
Template       162536 ..... 162517

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       161555 ..... 161574

>AF343568.1 Shrimp white spot syndrome virus putative TATA-box binding protein gene,
complete cds; and unknown genes

product length = 982
Forward primer 1      ATCATGGCTGCTTCACAGAC 20
Template       12978 ..... 12997

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       13959 ..... 13940

>AF369029.2 White spot syndrome virus, complete genome

product length = 982
Forward primer 1      ATCATGGCTGCTTCACAGAC 20
Template       214007 ..... 213988

Reverse primer 1      GGCTGGAGAGGACAAGACAT 20
Template       213026 ..... 213045

>AF295123.1 White spot syndrome virus genomic sequence

product length = 982
Forward primer 1      ATCATGGCTGCTTCACAGAC 20

```

```

Template          212 ..... 231

Reverse primer    1      GGCTGGAGAGGACAAGACAT  20
Template          1193 ..... 1174

>AF440570.1 Shrimp white spot syndrome virus, complete genome

product length = 982
Forward primer    1      ATCATGGCTGCTTCACAGAC  20
Template          198801 ..... 198782

Reverse primer    1      GGCTGGAGAGGACAAGACAT  20
Template          197820 ..... 197839

```

Search parameters and other details for primers P3 – P4 [43]

| | |
|--------------------------------------|-------|
| Number of Blast hits analyzed | 20724 |
| Entrez query | |
| Min total mismatches | 2 |
| Min 3' end mismatches | 2 |
| Defined 3' end region length | 5 |
| Mismatch threshold to ignore targets | 9 |
| Max target size | 4000 |
| Max number of Blast target sequences | 50000 |
| Blast E value | 30000 |
| Blast word size | 7 |
| Max candidate primer pairs | 500 |
| Min PCR product size | 60 |
| Max PCR product size | 1000 |
| Min Primer size | 15 |
| Opt Primer size | 20 |
| Max Primer size | 25 |
| Min Tm | 57 |
| Opt Tm | 60 |

| | |
|-----------------------|------|
| Max Tm | 63 |
| Max Tm difference | 3 |
| Repeat filter | AUTO |
| Low complexity filter | Yes |

Primer pair 7

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|----------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | TCTTCATCAGATGCTACTGC | 20 | 54.96 | 45.00 | 7.00 | 2.00 |
| Rv | TAACGCTATCCAGTATCACG | 20 | 54.53 | 45.00 | 4.00 | 3.00 |

Products on target templates

>AP027290.1 MAG: White spot syndrome virus Miyako2021 DNA, complete genome

```
product length = 570
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        161854 ..... 161835
```

```
Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        161285 ..... 161304
```

>AP027289.1 MAG: White spot syndrome virus 1-4 DNA, complete genome

```
product length = 570
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        162127 ..... 162108
```

```
Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        161558 ..... 161577
```

>AP027288.1 MAG: White spot syndrome virus 0722-1 DNA, complete genome

```
product length = 570
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        163056 ..... 163037
```

```
Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        162487 ..... 162506
```

>AP027287.1 MAG: White spot syndrome virus E2 DNA, complete genome

```
product length = 570
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        163543 ..... 163524
```

```
Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        162974 ..... 162993
```

>AP027286.1 MAG: White spot syndrome virus E1 DNA, complete genome

```
product length = 570
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        163544 ..... 163525
```

```
Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        162975 ..... 162994
```

>AP027285.1 MAG: White spot syndrome virus S14 DNA, complete genome

```
product length = 570
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        163478 ..... 163459
```

```
Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        162909 ..... 162928
```

>AP027284.1 MAG: White spot syndrome virus Pc2020 DNA, complete genome

```

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template       169450 ..... 169431

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template       168881 ..... 168900

>AP027283.1 MAG: White spot syndrome virus 79 DNA, complete genome

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template       166780 ..... 166761

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template       166211 ..... 166230

>AP027282.1 MAG: White spot syndrome virus JP04 DNA, complete genome

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template       170083 ..... 170064

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template       169514 ..... 169533

>AP027281.1 MAG: White spot syndrome virus JP03 DNA, complete genome

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template       170777 ..... 170758

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template       170208 ..... 170227

>AP027280.1 MAG: White spot syndrome virus JP02 DNA, complete genome

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template       169600 ..... 169581

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template       169031 ..... 169050

>AP027279.1 MAG: White spot syndrome virus JP01B DNA, complete genome

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template       169387 ..... 169368

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template       168818 ..... 168837

>AP027278.1 MAG: White spot syndrome virus JP01A DNA, complete genome

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template       169419 ..... 169400

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template       168850 ..... 168869

>OM350393.2 White spot syndrome virus isolate WSSV-Peru, partial genome

product length = 567
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template       161794 ..... 161775

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template       161228 ..... 161247

```

```

>NC_075105.1 White spot syndrome virus, complete genome

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC  20
Template       169613 ..... 169594

Reverse primer 1      TAACGCTATCCAGTATCACG  20
Template       169044 ..... 169063

>MW248108.1 MAG: White spot syndrome virus isolate CWG3

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC  20
Template       65794 ..... 65775

Reverse primer 1      TAACGCTATCCAGTATCACG  20
Template       65225 ..... 65244

>MW248107.1 MAG: White spot syndrome virus isolate DBA1182

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC  20
Template       131332 ..... 131313

Reverse primer 1      TAACGCTATCCAGTATCACG  20
Template       130763 ..... 130782

product length = 3032
Forward primer 1      TCTTCATCAGATGCTACTGC  20
Template       5199  A..A...A..A.CT.....  5218

Reverse primer 1      TAACGCTATCCAGTATCACG  20
Template       8230  G..G.GA.AA.....T  8211

>MN840357.1 White spot syndrome virus isolate CN_95_DFPE

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC  20
Template       169600 ..... 169581

Reverse primer 1      TAACGCTATCCAGTATCACG  20
Template       169031 ..... 169050

>MH883319.1 White spot syndrome virus isolate wssv_ciba_003

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC  20
Template       108825 ..... 108806

Reverse primer 1      TAACGCTATCCAGTATCACG  20
Template       108256 ..... 108275

>MH883318.1 White spot syndrome virus isolate WSSV_CIBA_002

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC  20
Template       157946 ..... 157927

Reverse primer 1      TAACGCTATCCAGTATCACG  20
Template       157377 ..... 157396

product length = 3019
Forward primer 1      TCTTCATCAGATGCTACTGC  20
Template       35116  A..A...A..A.CT.....  35135

Reverse primer 1      TAACGCTATCCAGTATCACG  20
Template       38134  G..G.GA.AA.....T  38115

>KU216744.2 White spot syndrome virus strain MEX2008

```

```

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      221038 ..... 221019

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      220469 ..... 220488

>MG432482.1 Shrimp white spot syndrome virus isolate LG

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      131580 ..... 131561

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      131011 ..... 131030

>MG432481.1 Shrimp white spot syndrome virus isolate LC1

product length = 573
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      151747 ..... 151728

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      151175 ..... 151194

>MG432480.1 Shrimp white spot syndrome virus isolate LC10

product length = 573
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      143516 ..... 143497

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      142944 ..... 142963

>MG432479.1 Shrimp white spot syndrome virus isolate JP

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      149322 ..... 149303

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      148753 ..... 148772

>MG432478.1 Shrimp white spot syndrome virus isolate GVE05

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      154894 ..... 154875

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      154325 ..... 154344

>MG432477.1 Shrimp white spot syndrome virus isolate DVI

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      161205 ..... 161186

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      160636 ..... 160655

>MG432476.1 Shrimp white spot syndrome virus isolate ACF4

product length = 573
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      151167 ..... 151148

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      150595 ..... 150614

```

```

>MG432475.1 Shrimp white spot syndrome virus isolate ACF2

product length = 570
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        161064 ..... 161045

Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        160495 ..... 160514

>MG432474.1 Shrimp white spot syndrome virus isolate AC1

product length = 570
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        143063 ..... 143044

Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        142494 ..... 142513

>MH090824.1 White spot syndrome virus isolate WSSV-EC-15098

product length = 570
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        164248 ..... 164229

Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        163679 ..... 163698

>MG702567.1 White spot syndrome virus isolate IN_AP4RU

product length = 553
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        262981 ..... 262962

Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        262429 ..... 262448

>MF784752.1 White spot syndrome virus isolate FSL39, partial genome

product length = 570
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        213433 ..... 213414

Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        212864 ..... 212883

>MF768985.1 White spot syndrome virus isolate WSSV-AU

product length = 570
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        209354 ..... 209335

Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        208785 ..... 208804

product length = 3203
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        81740  A..A...A..A..CT..... 81759

Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        84942  G..G.GA.AA.....T 84923

product length = 3031
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        81740  A..A...A..A..CT..... 81759

Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        84770  G..G.GA.AA.....T 84751

>KX686117.1 White spot syndrome virus strain PC

```

```

product length = 567
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      6462 ..... 6443

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      5896 ..... 5915

>KY827813.1 White spot syndrome virus strain CN04

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      159636 ..... 159617

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      159067 ..... 159086

>NC_003225.3 White spot syndrome virus strain CN01, complete genome

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      168415 ..... 168396

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      167846 ..... 167865

>KT995472.1 White spot syndrome virus strain CN01

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      168415 ..... 168396

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      167846 ..... 167865

>KT995471.1 White spot syndrome virus strain CN03

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      161733 ..... 161714

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      161164 ..... 161183

product length = 3031
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      32933 A..A...A...A..CT..... 32952

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      35963 G...G..GA..AA.....T 35944

>KT995470.1 White spot syndrome virus strain CN02

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      164055 ..... 164036

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      163486 ..... 163505

>KT957066.1 White spot syndrome virus strain Mx-F ORF142 gene, partial cds

product length = 570
Forward primer 1      TCTTCATCAGATGCTACTGC 20
Template      733 ..... 714

Reverse primer 1      TAACGCTATCCAGTATCACG 20
Template      164 ..... 183

>KC189609.1 Shrimp white spot syndrome virus isolate charal wsv285 gene, partial cds

```

```

product length = 570
Forward primer 1 TCTTCATCAGATGCTACTGC 20
Template 1 ..... 20

Reverse primer 1 TAACGCTATCCAGTATCACG 20
Template 570 ..... 551

>JX515788.1 White spot syndrome virus strain K-LV1, complete genome

product length = 570
Forward primer 1 TCTTCATCAGATGCTACTGC 20
Template 162316 ..... 162297

Reverse primer 1 TAACGCTATCCAGTATCACG 20
Template 161747 ..... 161766

>FJ789570.1 Shrimp white spot syndrome virus ORF143 gene, partial cds

product length = 567
Forward primer 1 TCTTCATCAGATGCTACTGC 20
Template 193 ..... 212

Reverse primer 1 TAACGCTATCCAGTATCACG 20
Template 759 ..... 740

>FJ609650.1 Shrimp white spot syndrome virus isolate Guasave wsv285 gene, partial cds

product length = 570
Forward primer 1 TCTTCATCAGATGCTACTGC 20
Template 570 ..... 551

Reverse primer 1 TAACGCTATCCAGTATCACG 20
Template 1 ..... 20

>AF343568.1 Shrimp white spot syndrome virus putative TATA-box binding protein gene,
complete cds; and unknown genes

product length = 570
Forward primer 1 TCTTCATCAGATGCTACTGC 20
Template 13198 ..... 13217

Reverse primer 1 TAACGCTATCCAGTATCACG 20
Template 13767 ..... 13748

>AF369029.2 White spot syndrome virus, complete genome

product length = 570
Forward primer 1 TCTTCATCAGATGCTACTGC 20
Template 213787 ..... 213768

Reverse primer 1 TAACGCTATCCAGTATCACG 20
Template 213218 ..... 213237

>AF295123.1 White spot syndrome virus genomic sequence

product length = 570
Forward primer 1 TCTTCATCAGATGCTACTGC 20
Template 432 ..... 451

Reverse primer 1 TAACGCTATCCAGTATCACG 20
Template 1001 ..... 982

>AF440570.1 Shrimp white spot syndrome virus, complete genome

product length = 570
Forward primer 1 TCTTCATCAGATGCTACTGC 20
Template 198581 ..... 198562

Reverse primer 1 TAACGCTATCCAGTATCACG 20
Template 198012 ..... 198031

```

```

>ON457602.1 White spot syndrome virus isolate GoC18, partial genome

product length = 570
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        159329 .....G.... 159348

Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        159898 ..... 159879

>MZ098151.1 White spot syndrome virus isolate WSSV-AN02 wsv285 gene, partial cds

product length = 570
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        1      ..... 20

Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        570    ...G..... 551

>MW248106.1 MAG: White spot syndrome virus isolate PGI

product length = 570
Forward primer  1      TCTTCATCAGATGCTACTGC  20
Template        65695 .....C..... 65676

Reverse primer  1      TAACGCTATCCAGTATCACG  20
Template        65126 ..... 65145

```

Search parameters and other details for primers FQ-P3 – FQ-P4 [44]

| | |
|--------------------------------------|-------|
| Number of Blast hits analyzed | 9141 |
| Entrez query | |
| Min total mismatches | 2 |
| Min 3' end mismatches | 2 |
| Defined 3' end region length | 5 |
| Mismatch threshold to ignore targets | 9 |
| Max target size | 4000 |
| Max number of Blast target sequences | 50000 |
| Blast E value | 30000 |
| Blast word size | 7 |
| Max candidate primer pairs | 500 |
| Min PCR product size | 61 |
| Max PCR product size | 1000 |
| Min Primer size | 15 |
| Opt Primer size | 20 |
| Max Primer size | 25 |
| Min Tm | 57 |
| Opt Tm | 60 |
| Max Tm | 63 |

| | |
|-----------------------|------|
| Max Tm difference | 3 |
| Repeat filter | AUTO |
| Low complexity filter | Yes |

Primer pair 8

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|-----------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | AAGCATCGTGGAGACTCTTGC | 21 | 60.67 | 52.38 | 5.00 | 2.00 |
| Rv | GAAGATTCGCCGCTCATAACC | 20 | 58.86 | 55.00 | 4.00 | 0.00 |

Products on target templates

>ON457602.1 White spot syndrome virus isolate GoC18, partial genome

product length = 129

Forward primer 1 AAGCATCGTGGAGACTCTTGC 21
 Template 101986 101966

Reverse primer 1 GAAGATTCGCCGCTCATAACC 20
 Template 101858 101877

>AP027290.1 MAG: White spot syndrome virus Miyako2021 DNA, complete genome

product length = 129

Forward primer 1 AAGCATCGTGGAGACTCTTGC 21
 Template 219159 219179

Reverse primer 1 GAAGATTCGCCGCTCATAACC 20
 Template 219287 219268

>AP027289.1 MAG: White spot syndrome virus 1-4 DNA, complete genome

product length = 129

Forward primer 1 AAGCATCGTGGAGACTCTTGC 21
 Template 219456 219476

Reverse primer 1 GAAGATTCGCCGCTCATAACC 20
 Template 219584 219565

>AP027288.1 MAG: White spot syndrome virus 0722-1 DNA, complete genome

product length = 129

Forward primer 1 AAGCATCGTGGAGACTCTTGC 21
 Template 220364 220384

Reverse primer 1 GAAGATTCGCCGCTCATAACC 20
 Template 220492 220473

>AP027287.1 MAG: White spot syndrome virus E2 DNA, complete genome

product length = 129

Forward primer 1 AAGCATCGTGGAGACTCTTGC 21
 Template 220881 220901

Reverse primer 1 GAAGATTCGCCGCTCATAACC 20
 Template 221009 220990

>AP027286.1 MAG: White spot syndrome virus E1 DNA, complete genome

product length = 129

Forward primer 1 AAGCATCGTGGAGACTCTTGC 21
 Template 220882 220902

Reverse primer 1 GAAGATTCGCCGCTCATAACC 20
 Template 221010 220991

>AP027285.1 MAG: White spot syndrome virus S14 DNA, complete genome

```

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template      220816 ..... 220836

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template      220944 ..... 220925

>AP027284.1 MAG: White spot syndrome virus Pc2020 DNA, complete genome

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template      226808 ..... 226828

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template      226936 ..... 226917

>AP027283.1 MAG: White spot syndrome virus 79 DNA, complete genome

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template      224166 ..... 224186

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template      224294 ..... 224275

>AP027282.1 MAG: White spot syndrome virus JP04 DNA, complete genome

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template      227925 ..... 227945

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template      228053 ..... 228034

>AP027281.1 MAG: White spot syndrome virus JP03 DNA, complete genome

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template      228109 ..... 228129

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template      228237 ..... 228218

>AP027280.1 MAG: White spot syndrome virus JP02 DNA, complete genome

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template      226950 ..... 226970

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template      227078 ..... 227059

>AP027279.1 MAG: White spot syndrome virus JP01B DNA, complete genome

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template      226743 ..... 226763

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template      226871 ..... 226852

>AP027278.1 MAG: White spot syndrome virus JP01A DNA, complete genome

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template      226770 ..... 226790

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template      226898 ..... 226879

>OM350393.2 White spot syndrome virus isolate WSSV-Peru, partial genome

```

```

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       217213 ..... 217233

Reverse primer 1      GAAGATTCGCCGCTCATACC 20
Template       217341 ..... 217322

>NC_075105.1 White spot syndrome virus, complete genome

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       226960 ..... 226980

Reverse primer 1      GAAGATTCGCCGCTCATACC 20
Template       227088 ..... 227069

>MW248108.1 MAG: White spot syndrome virus isolate CWG3

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       120990 ..... 121010

Reverse primer 1      GAAGATTCGCCGCTCATACC 20
Template       121118 ..... 121099

>MW248107.1 MAG: White spot syndrome virus isolate DBA1182

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       186533 ..... 186553

Reverse primer 1      GAAGATTCGCCGCTCATACC 20
Template       186661 ..... 186642

>MW248106.1 MAG: White spot syndrome virus isolate PG1

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       121128 ..... 121148

Reverse primer 1      GAAGATTCGCCGCTCATACC 20
Template       121256 ..... 121237

>MN840357.1 White spot syndrome virus isolate CN_95_DFPE

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       226945 ..... 226965

Reverse primer 1      GAAGATTCGCCGCTCATACC 20
Template       227073 ..... 227054

>MH883319.1 White spot syndrome virus isolate wssv_ciba_003

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       164017 ..... 164037

Reverse primer 1      GAAGATTCGCCGCTCATACC 20
Template       164145 ..... 164126

>MH883318.1 White spot syndrome virus isolate WSSV_CIBA_002

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       216773 ..... 216793

Reverse primer 1      GAAGATTCGCCGCTCATACC 20
Template       216901 ..... 216882

```

```

>KU216744.2 White spot syndrome virus strain MEX2008

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template       278500 ..... 278520

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template       278628 ..... 278609

>MG432482.1 Shrimp white spot syndrome virus isolate LG

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template       188639 ..... 188659

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template       188767 ..... 188748

>MG432481.1 Shrimp white spot syndrome virus isolate LC1

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template       208800 ..... 208820

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template       208928 ..... 208909

>MG432480.1 Shrimp white spot syndrome virus isolate LC10

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template       200742 ..... 200762

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template       200870 ..... 200851

>MG432479.1 Shrimp white spot syndrome virus isolate JP

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template       206341 ..... 206361

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template       206469 ..... 206450

>MG432477.1 Shrimp white spot syndrome virus isolate DVI

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template       218492 ..... 218512

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template       218620 ..... 218601

>MG432476.1 Shrimp white spot syndrome virus isolate ACF4

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template       208147 ..... 208167

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template       208275 ..... 208256

>MG432475.1 Shrimp white spot syndrome virus isolate ACF2

product length = 128
Forward primer 1      AAGCATCGTGGAGACTCTTGC  21
Template       218159 ..... 218179

Reverse primer 1      GAAGATTCGCCGCTCATAACC  20
Template       218286 ..... 218267

```

```

>MG432474.1 Shrimp white spot syndrome virus isolate AC1

product length = 128
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       200250 ..... 200270

Reverse primer 1      GAAGATTCGCCGCTCATACC 20
Template       200377 ..... 200358

>MH090824.1 White spot syndrome virus isolate WSSV-EC-15098

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       221086 ..... 221106

Reverse primer 1      GAAGATTCGCCGCTCATACC 20
Template       221214 ..... 221195

>MG702567.1 White spot syndrome virus isolate IN_AP4RU

product length = 128
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       37200 ..... 37220

Reverse primer 1      GAAGATTCGCCGCTCATACC 20
Template       37327 ..... 37308

product length = 3691
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       37200 ..... 37220

Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       40890 CT...C.AC..C.G..... 40870

>MF784752.1 White spot syndrome virus isolate FSL39, partial genome

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       271067 ..... 271087

Reverse primer 1      GAAGATTCGCCGCTCATACC 20
Template       271195 ..... 271176

>MF768985.1 White spot syndrome virus isolate WSSV-AU

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       264712 ..... 264732

Reverse primer 1      GAAGATTCGCCGCTCATACC 20
Template       264840 ..... 264821

>KX686117.1 White spot syndrome virus strain PC

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       64285 ..... 64305

Reverse primer 1      GAAGATTCGCCGCTCATACC 20
Template       64413 ..... 64394

>KY827813.1 White spot syndrome virus strain CN04

product length = 129
Forward primer 1      AAGCATCGTGGAGACTCTTGC 21
Template       214823 ..... 214843

Reverse primer 1      GAAGATTCGCCGCTCATACC 20
Template       214951 ..... 214932

```

>NC_003225.3 White spot syndrome virus strain CN01, complete genome

```
product length = 129
Forward primer  1      AAGCATCGTGGAGACTCTTGC  21
Template        225253 ..... 225273
```

```
Reverse primer  1      GAAGATTCGCCGCTCATAACC  20
Template        225381 ..... 225362
```

>KT995472.1 White spot syndrome virus strain CN01

```
product length = 129
Forward primer  1      AAGCATCGTGGAGACTCTTGC  21
Template        225253 ..... 225273
```

```
Reverse primer  1      GAAGATTCGCCGCTCATAACC  20
Template        225381 ..... 225362
```

>KT995471.1 White spot syndrome virus strain CN03

```
product length = 129
Forward primer  1      AAGCATCGTGGAGACTCTTGC  21
Template        216932 ..... 216952
```

```
Reverse primer  1      GAAGATTCGCCGCTCATAACC  20
Template        217060 ..... 217041
```

>KT995470.1 White spot syndrome virus strain CN02

```
product length = 129
Forward primer  1      AAGCATCGTGGAGACTCTTGC  21
Template        221136 ..... 221156
```

```
Reverse primer  1      GAAGATTCGCCGCTCATAACC  20
Template        221264 ..... 221245
```

>JX515788.1 White spot syndrome virus strain K-LV1, complete genome

```
product length = 129
Forward primer  1      AAGCATCGTGGAGACTCTTGC  21
Template        219636 ..... 219656
```

```
Reverse primer  1      GAAGATTCGCCGCTCATAACC  20
Template        219764 ..... 219745
```

>AF369029.2 White spot syndrome virus, complete genome

```
product length = 129
Forward primer  1      AAGCATCGTGGAGACTCTTGC  21
Template        271382 ..... 271402
```

```
Reverse primer  1      GAAGATTCGCCGCTCATAACC  20
Template        271510 ..... 271491
```

>AF440570.1 Shrimp white spot syndrome virus, complete genome

```
product length = 129
Forward primer  1      AAGCATCGTGGAGACTCTTGC  21
Template        257278 ..... 257298
```

```
Reverse primer  1      GAAGATTCGCCGCTCATAACC  20
Template        257406 ..... 257387
```

Search parameters and other details for primers WSSV-RT1 – WSSV-RT2 [45]

| | |
|--------------------------------------|-------|
| Number of Blast hits analyzed | 7857 |
| Entrez query | |
| Min total mismatches | 2 |
| Min 3' end mismatches | 2 |
| Defined 3' end region length | 5 |
| Mismatch threshold to ignore targets | 9 |
| Max target size | 4000 |
| Max number of Blast target sequences | 50000 |
| Blast E value | 30000 |
| Blast word size | 7 |
| Max candidate primer pairs | 500 |
| Min PCR product size | 58 |
| Max PCR product size | 1000 |
| Min Primer size | 15 |
| Opt Primer size | 20 |
| Max Primer size | 25 |
| Min Tm | 57 |
| Opt Tm | 60 |
| Max Tm | 63 |
| Max Tm difference | 3 |

| | |
|-----------------------|------|
| Repeat filter | AUTO |
| Low complexity filter | Yes |

Primer pair 9

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|-----------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | TTGGTTTCATGCCCCGAGATT | 20 | 57.79 | 45.00 | 4.00 | 1.00 |
| Rv | CCTTGGTCAGCCCCTTGA | 18 | 58.83 | 61.11 | 3.00 | 1.00 |

Products on target templates

>AP027290.1 MAG: White spot syndrome virus Miyako2021 DNA, complete genome

```
product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template       223343 ..... 223362

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template       223399 ..... 223382
```

>AP027289.1 MAG: White spot syndrome virus 1-4 DNA, complete genome

```
product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template       223640 ..... 223659

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template       223696 ..... 223679
```

>AP027288.1 MAG: White spot syndrome virus 0722-1 DNA, complete genome

```
product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template       224548 ..... 224567

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template       224604 ..... 224587
```

>AP027287.1 MAG: White spot syndrome virus E2 DNA, complete genome

```
product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template       225065 ..... 225084

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template       225121 ..... 225104
```

>AP027286.1 MAG: White spot syndrome virus E1 DNA, complete genome

```
product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template       225066 ..... 225085

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template       225122 ..... 225105
```

>AP027285.1 MAG: White spot syndrome virus S14 DNA, complete genome

```
product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template       225000 ..... 225019

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template       225056 ..... 225039
```

>AP027284.1 MAG: White spot syndrome virus Pc2020 DNA, complete genome

```
product length = 57
```



```

Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       230992 ..... 231011

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       231048 ..... 231031

>AP027283.1 MAG: White spot syndrome virus 79 DNA, complete genome

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       228350 ..... 228369

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       228406 ..... 228389

>AP027282.1 MAG: White spot syndrome virus JP04 DNA, complete genome

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       232109 ..... 232128

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       232165 ..... 232148

>AP027281.1 MAG: White spot syndrome virus JP03 DNA, complete genome

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       232293 ..... 232312

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       232349 ..... 232332

>AP027280.1 MAG: White spot syndrome virus JP02 DNA, complete genome

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       231134 ..... 231153

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       231190 ..... 231173

>AP027279.1 MAG: White spot syndrome virus JP01B DNA, complete genome

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       230927 ..... 230946

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       230983 ..... 230966

>AP027278.1 MAG: White spot syndrome virus JP01A DNA, complete genome

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       230954 ..... 230973

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       231010 ..... 230993

>ON457602.1 White spot syndrome virus isolate GoC18, partial genome

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       97802 ..... 97783

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       97746 ..... 97763

>OM350393.2 White spot syndrome virus isolate WSSV-Peru, partial genome

```

```

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template      221394 ..... 221413

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template      221450 ..... 221433

>NC_075105.1 White spot syndrome virus, complete genome

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template      231144 ..... 231163

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template      231200 ..... 231183

>MW248108.1 MAG: White spot syndrome virus isolate CWG3

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template      125171 ..... 125190

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template      125227 ..... 125210

>MW248107.1 MAG: White spot syndrome virus isolate DBA1182

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template      190714 ..... 190733

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template      190770 ..... 190753

>MW248106.1 MAG: White spot syndrome virus isolate PGI

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template      125312 ..... 125331

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template      125368 ..... 125351

>MN840357.1 White spot syndrome virus isolate CN_95_DFPE

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template      231129 ..... 231148

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template      231185 ..... 231168

>MH883319.1 White spot syndrome virus isolate wssv_ciba_003

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template      168198 ..... 168217

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template      168254 ..... 168237

>MH883318.1 White spot syndrome virus isolate WSSV_CIBA_002

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template      220954 ..... 220973

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template      221010 ..... 220993

>KU216744.2 White spot syndrome virus strain MEX2008

```

```

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       282684 ..... 282703

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       282740 ..... 282723

>MG432482.1 Shrimp white spot syndrome virus isolate LG

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       192823 ..... 192842

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       192879 ..... 192862

>MG432481.1 Shrimp white spot syndrome virus isolate LC1

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       212984 ..... 213003

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       213040 ..... 213023

>MG432480.1 Shrimp white spot syndrome virus isolate LC10

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       204926 ..... 204945

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       204982 ..... 204965

>MG432479.1 Shrimp white spot syndrome virus isolate JP

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       210525 ..... 210544

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       210581 ..... 210564

>MG432477.1 Shrimp white spot syndrome virus isolate DVI

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       222676 ..... 222695

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       222732 ..... 222715

>MG432476.1 Shrimp white spot syndrome virus isolate ACF4

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       212330 ..... 212349

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       212386 ..... 212369

>MG432475.1 Shrimp white spot syndrome virus isolate ACF2

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT 20
Template       222342 ..... 222361

Reverse primer 1      CCTTGGTCAGCCCCTTGA 18
Template       222398 ..... 222381

```

```

>MG432474.1 Shrimp white spot syndrome virus isolate AC1

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template       204433 ..... 204452

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template       204489 ..... 204472

>MH090824.1 White spot syndrome virus isolate WSSV-EC-15098

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template       225270 ..... 225289

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template       225326 ..... 225309

>MF784752.1 White spot syndrome virus isolate FSL39, partial genome

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template       275251 ..... 275270

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template       275307 ..... 275290

>MF768985.1 White spot syndrome virus isolate WSSV-AU

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template       268893 ..... 268912

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template       268949 ..... 268932

>KX686117.1 White spot syndrome virus strain PC

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template       68466 ..... 68485

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template       68522 ..... 68505

>KY827813.1 White spot syndrome virus strain CN04

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template       219004 ..... 219023

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template       219060 ..... 219043

>NC_003225.3 White spot syndrome virus strain CN01, complete genome

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template       229437 ..... 229456

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template       229493 ..... 229476

>KT995472.1 White spot syndrome virus strain CN01

product length = 57
Forward primer 1      TTGGTTTCATGCCCCGAGATT  20
Template       229437 ..... 229456

Reverse primer 1      CCTTGGTCAGCCCCTTGA  18
Template       229493 ..... 229476

```

```

>KT995471.1 White spot syndrome virus strain CN03

product length = 57
Forward primer  1      TTGGTTTCATGCCCCGAGATT  20
Template        221113 ..... 221132

Reverse primer  1      CCTTGGTCAGCCCCTTGA  18
Template        221169 ..... 221152

>KT995470.1 White spot syndrome virus strain CN02

product length = 57
Forward primer  1      TTGGTTTCATGCCCCGAGATT  20
Template        225320 ..... 225339

Reverse primer  1      CCTTGGTCAGCCCCTTGA  18
Template        225376 ..... 225359

>JX515788.1 White spot syndrome virus strain K-LV1, complete genome

product length = 57
Forward primer  1      TTGGTTTCATGCCCCGAGATT  20
Template        223820 ..... 223839

Reverse primer  1      CCTTGGTCAGCCCCTTGA  18
Template        223876 ..... 223859

>AF369029.2 White spot syndrome virus, complete genome

product length = 57
Forward primer  1      TTGGTTTCATGCCCCGAGATT  20
Template        275566 ..... 275585

Reverse primer  1      CCTTGGTCAGCCCCTTGA  18
Template        275622 ..... 275605

>AF440570.1 Shrimp white spot syndrome virus, complete genome

product length = 57
Forward primer  1      TTGGTTTCATGCCCCGAGATT  20
Template        261462 ..... 261481

Reverse primer  1      CCTTGGTCAGCCCCTTGA  18
Template        261518 ..... 261501

>AF132668.1 White spot syndrome virus thymidine kinase gene, complete cds; and unknown genes

product length = 57
Forward primer  1      TTGGTTTCATGCCCCGAGATT  20
Template        7907 ..... 7888

Reverse primer  1      CCTTGGTCAGCCCCTTGA  18
Template        7851 ..... 7868

>MG702567.1 White spot syndrome virus isolate IN_AP4RU

product length = 57
Forward primer  1      TTGGTTTCATGCCCCGAGATT  20
Template        41334 .....-..... 41352

Reverse primer  1      CCTTGGTCAGCCCCTTGA  18
Template        41389 ..... 41372

product length = 589
Forward primer  1      TTGGTTTCATGCCCCGAGATT  20
Template        98511 A...A..AC.T..... 98530

Reverse primer  1      CCTTGGTCAGCCCCTTGA  18
Template        99099 T.....CA.A.....G 99082

```

Search parameters and other details for primers Forward – Reverse [46]

| | |
|--------------------------------------|-------|
| Number of Blast hits analyzed | 16758 |
| Entrez query | |
| Min total mismatches | 2 |
| Min 3' end mismatches | 2 |
| Defined 3' end region length | 5 |
| Mismatch threshold to ignore targets | 9 |
| Max target size | 4000 |
| Max number of Blast target sequences | 50000 |
| Blast E value | 30000 |
| Blast word size | 7 |
| Max candidate primer pairs | 500 |
| Min PCR product size | 62 |
| Max PCR product size | 1000 |
| Min Primer size | 15 |
| Opt Primer size | 20 |
| Max Primer size | 25 |
| Min Tm | 57 |
| Opt Tm | 60 |
| Max Tm | 63 |
| Max Tm difference | 3 |
| Repeat filter | AUTO |

| | |
|-----------------------|-----|
| Low complexity filter | Yes |
|-----------------------|-----|

Primer pair 10

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|------------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | CCCACACAGACAATATCGAGAC | 22 | 58.55 | 50.00 | 4.00 | 2.00 |
| Rv | TCGCTGTCAAAGGACACATC | 20 | 58.20 | 50.00 | 4.00 | 0.00 |

Products on target templates

>AP027290.1 MAG: White spot syndrome virus Miyako2021 DNA, complete genome

```
product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       240856 ..... 240877
```

```
Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       240964 ..... 240945
```

>AP027289.1 MAG: White spot syndrome virus 1-4 DNA, complete genome

```
product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       241153 ..... 241174
```

```
Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       241261 ..... 241242
```

>AP027288.1 MAG: White spot syndrome virus 0722-1 DNA, complete genome

```
product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       242065 ..... 242086
```

```
Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       242173 ..... 242154
```

>AP027287.1 MAG: White spot syndrome virus E2 DNA, complete genome

```
product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       243165 ..... 243186
```

```
Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       243273 ..... 243254
```

>AP027286.1 MAG: White spot syndrome virus E1 DNA, complete genome

```
product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       243166 ..... 243187
```

```
Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       243274 ..... 243255
```

>AP027285.1 MAG: White spot syndrome virus S14 DNA, complete genome

```
product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       243100 ..... 243121
```

```
Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       243208 ..... 243189
```

>AP027284.1 MAG: White spot syndrome virus Pc2020 DNA, complete genome

```
product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       248511 ..... 248532
```

```

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       248619 ..... 248600

product length = 2028
Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       136563 .AG.....G..T.T...C. 136584

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       138590 .TTT.A.AC.....G. 138571

>AP027283.1 MAG: White spot syndrome virus 79 DNA, complete genome

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       245868 ..... 245889

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       245976 ..... 245957

product length = 2030
Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       133498 .AG.....G..T.T...C. 133519

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       135527 .TTT.A.AC.....G. 135508

>AP027282.1 MAG: White spot syndrome virus JP04 DNA, complete genome

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       249626 ..... 249647

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       249734 ..... 249715

product length = 2031
Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       137187 .AG.....G..T.T...C. 137208

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       139217 .TTT.A.AC.....G. 139198

>AP027281.1 MAG: White spot syndrome virus JP03 DNA, complete genome

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       249810 ..... 249831

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       249918 ..... 249899

product length = 2030
Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       137762 .AG.....G..T.T...C. 137783

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       139791 .TTT.A.AC.....G. 139772

>AP027280.1 MAG: White spot syndrome virus JP02 DNA, complete genome

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       248972 ..... 248993

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       249080 ..... 249061

```



```

product length = 2031
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       136653 .AG.....G..T.T...C.  136674

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       138683 .TTT.A.AC.....G.  138664

>AP027278.1 MAG: White spot syndrome virus JP01A DNA, complete genome

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       248526 .....  248547

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       248634 .....  248615

product length = 2028
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       136388 .AG.....G..T.T...C.  136409

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       138415 .TTT.A.AC.....G.  138396

>ON457602.1 White spot syndrome virus isolate GoC18, partial genome

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       80875 .....  80854

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       80767 .....  80786

>OM350393.2 White spot syndrome virus isolate WSSV-Peru, partial genome

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       233674 .....  233695

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       233782 .....  233763

>NC_075105.1 White spot syndrome virus, complete genome

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       248985 .....  249006

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       249093 .....  249074

product length = 2030
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       136526 .AG.....G..T.T...C.  136547

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       138555 .TTT.A.AC.....G.  138536

>MW248106.1 MAG: White spot syndrome virus isolate PG1

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       142884 .....  142905

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       142992 .....  142973

>MN840357.1 White spot syndrome virus isolate CN_95_DFPE

```

```

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       248950 ..... 248971

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       249058 ..... 249039

product length = 2030
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       136516 .AG.....G..T.T...C. 136537

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       138545 .TTT.A.AC.....G. 138526

>KU216744.2 White spot syndrome virus strain MEX2008

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       116 ..... 137

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       224 ..... 205

product length = 2028
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       188129 .AG.....G..T.T...C. 188150

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       190156 .TTT.A.AC.....G. 190137

>MG432482.1 Shrimp white spot syndrome virus isolate LG

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       207438 ..... 207459

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       207546 ..... 207527

>MG432481.1 Shrimp white spot syndrome virus isolate LC1

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       227855 ..... 227876

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       227963 ..... 227944

>MG432480.1 Shrimp white spot syndrome virus isolate LC10

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       219867 ..... 219888

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       219975 ..... 219956

>MG432479.1 Shrimp white spot syndrome virus isolate JP

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       228176 ..... 228197

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       228284 ..... 228265

>MG432478.1 Shrimp white spot syndrome virus isolate GVE05

```

```

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template      224297 ..... 224318

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template      224405 ..... 224386

>MG432477.1 Shrimp white spot syndrome virus isolate DVI

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template      240427 ..... 240448

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template      240535 ..... 240516

>MG432476.1 Shrimp white spot syndrome virus isolate ACF4

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template      226975 ..... 226996

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template      227083 ..... 227064

>MG432475.1 Shrimp white spot syndrome virus isolate ACF2

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template      239826 ..... 239847

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template      239934 ..... 239915

>MG432474.1 Shrimp white spot syndrome virus isolate AC1

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template      222215 ..... 222236

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template      222323 ..... 222304

>MH090824.1 White spot syndrome virus isolate WSSV-EC-15098

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template      242788 ..... 242809

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template      242896 ..... 242877

>MG702567.1 White spot syndrome virus isolate IN_AP4RU

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template      58628 ..... 58649

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template      58736 ..... 58717

>MF784752.1 White spot syndrome virus isolate FSL39, partial genome

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template      116 ..... 137

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template      224 ..... 205

```

```

product length = 2031
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       180560 .AG.....G..T.T...C.  180581

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       182590 .TTT.A.AC.....G.  182571

>KX686117.1 White spot syndrome virus strain PC

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       86626 .....  86647

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       86734 .....  86715

product length = 2031
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       274182 .AG.....G..T.T...C.  274203

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       276212 .TTT.A.AC.....G.  276193

>KY273305.1 White spot syndrome virus isolate W-CAM 101 virion protein 28 (VP28) gene,
partial cds

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       2 .....  23

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       110 .....  91

>NC_003225.3 White spot syndrome virus strain CN01, complete genome

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       246955 .....  246976

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       247063 .....  247044

product length = 2030
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       135400 .AG.....G..T.T...C.  135421

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       137429 .TTT.A.AC.....G.  137410

>KT995472.1 White spot syndrome virus strain CN01

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       246955 .....  246976

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       247063 .....  247044

product length = 2030
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       135400 .AG.....G..T.T...C.  135421

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       137429 .TTT.A.AC.....G.  137410

>KT995470.1 White spot syndrome virus strain CN02

product length = 109

```

```

Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       242867 ..... 242888

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       242975 ..... 242956

>KT748521.1 White spot syndrome virus strain Mx12-1 ORF1 gene, complete cds; and ORF2 gene,
partial cds

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       191 ..... 212

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       299 ..... 280

>KU359256.1 White spot syndrome virus isolate SDHW15 VP28 (VP28) gene, partial cds

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       57 ..... 78

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       165 ..... 146

>KF723558.1 White spot syndrome virus isolate Chabahar structural protein VP28 (VP28) gene,
partial cds

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       114 ..... 135

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       222 ..... 203

>AB855742.1 Shrimp white spot syndrome virus gene for structural protein VP28, partial cds,
strain: IRI-KHZ/904

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       29 ..... 50

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       137 ..... 118

>JX515788.1 White spot syndrome virus strain K-LV1, complete genome

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       241017 ..... 241038

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       241125 ..... 241106

product length = 2030
Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       129983 .AG.....G..T..C. 130004

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       132012 .TTT.A.AC.....G. 131993

>JX444993.1 Shrimp white spot syndrome virus strain 07VN.VP28.BD2.12 structural protein VP28
(WSV421) gene, complete cds

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC 22
Template       116 ..... 137

Reverse primer 1      TCGCTGTCAAAGGACACATC 20
Template       224 ..... 205

```

>HQ130032.1 Shrimp white spot syndrome virus VP28 envelope protein gene, partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 29 50

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 137 118

>HM484379.1 Shrimp white spot syndrome virus isolate Chidambaram M1 VP28 gene, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 107 128

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 215 196

>GU734034.1 Shrimp white spot syndrome virus isolate SDDL/09 envelope protein VP28 gene, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 205

>FJ756454.1 Shrimp white spot syndrome virus strain WSSV-Mx-G-2004 major structural protein VP28 (VP28) gene, partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 254 275

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 362 343

>FJ756453.1 Shrimp white spot syndrome virus strain WSSV-Mx-C-2005 major structural protein VP28 (VP28) gene, partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 254 275

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 362 343

>EF194079.1 Shrimp white spot syndrome virus VP28 envelope protein gene, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 205

>DQ979320.1 Shrimp white spot syndrome virus VP28 gene, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 205

>AY682926.1 Shrimp white spot syndrome virus VP28 gene, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22

```

Template          116 ..... 137

Reverse primer    1      TCGCTGTCAAAGGACACATC  20
Template          224 ..... 205

>AY249443.1 Shrimp white spot syndrome virus isolate Japan 98 VP28 gene, complete cds

product length = 109
Forward primer    1      CCCACACAGACAATATCGAGAC  22
Template          140 ..... 161

Reverse primer    1      TCGCTGTCAAAGGACACATC  20
Template          248 ..... 229

>AY249442.1 Shrimp white spot syndrome virus isolate US 98/South Carolina VP28 gene,
complete cds

product length = 109
Forward primer    1      CCCACACAGACAATATCGAGAC  22
Template          140 ..... 161

Reverse primer    1      TCGCTGTCAAAGGACACATC  20
Template          248 ..... 229

>AY249441.1 Shrimp white spot syndrome virus isolate Indonesia 97 VP28 gene, complete cds

product length = 109
Forward primer    1      CCCACACAGACAATATCGAGAC  22
Template          138 ..... 159

Reverse primer    1      TCGCTGTCAAAGGACACATC  20
Template          246 ..... 227

>AY249440.1 Shrimp white spot syndrome virus isolate China 99/Qindao VP28 gene, complete cds

product length = 109
Forward primer    1      CCCACACAGACAATATCGAGAC  22
Template          139 ..... 160

Reverse primer    1      TCGCTGTCAAAGGACACATC  20
Template          247 ..... 228

>AF272979.1 Shrimp white spot syndrome virus 25kDa structural protein VP25 gene, complete
cds

product length = 109
Forward primer    1      CCCACACAGACAATATCGAGAC  22
Template          551 ..... 572

Reverse primer    1      TCGCTGTCAAAGGACACATC  20
Template          659 ..... 640

>AJ937859.1 Shrimp white spot syndrome virus partial vp28 gene for VP28 envelope protein,
isolate Mexican

product length = 109
Forward primer    1      CCCACACAGACAATATCGAGAC  22
Template          20 ..... 41

Reverse primer    1      TCGCTGTCAAAGGACACATC  20
Template          128 ..... 109

>AF369029.2 White spot syndrome virus, complete genome

product length = 109
Forward primer    1      CCCACACAGACAATATCGAGAC  22
Template          116 ..... 137

Reverse primer    1      TCGCTGTCAAAGGACACATC  20
Template          224 ..... 205

```

```

product length = 2029
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       180842  .AG.....G..T.T...C.  180863

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       182870  .TTT.A.AC.....G.  182851

>AY422228.1 Shrimp white spot syndrome virus Vp28 gene, complete cds

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       116    .....  137

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       224    .....  205

>AJ551447.1 White spot syndrome baculovirus vp28 gene for vp28 structural protein

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       269    .....  290

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       377    .....  358

>AY168644.1 Shrimp white spot syndrome virus major virion protein VP28 gene, complete cds

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       116    .....  137

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       224    .....  205

>AF227911.1 White spot syndrome virus structural protein mRNA, complete cds

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       598    .....  619

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       706    .....  687

>AF380842.1 White spot syndrome virus major virion protein VP28 gene, complete cds

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       116    .....  137

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       224    .....  205

>AF440570.1 Shrimp white spot syndrome virus, complete genome

product length = 109
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       278980  .....  279001

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       279088  .....  279069

product length = 2030
Forward primer 1      CCCACACAGACAATATCGAGAC  22
Template       165500  .AG.....G..T.T...C.  165521

Reverse primer 1      TCGCTGTCAAAGGACACATC  20
Template       167529  .TTT.A.AC.....G.  167510

```



```

>AF173993.1 White spot syndrome virus 28 kDa structural protein VP28 (VP28) gene, complete
cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 438 .....G..... 459

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 546 ..... 527

>AP027279.1 MAG: White spot syndrome virus JP01B DNA, complete genome

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 248499 .....G..... 248520

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 248607 ..... 248588

product length = 2028
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 136377 .AG.....G..T.T...C. 136398

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 138404 .TTT.A.AC.....G. 138385

>MZ383199.1 White spot syndrome virus strain CSU0 outer membrane protein VP28 gene, partial
cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 59 .....G..... 80

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 167 ..... 148

>MZ383198.1 White spot syndrome virus strain CSU1 outer membrane protein VP28 gene, complete
cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 .....G..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

>MZ383197.1 White spot syndrome virus strain CSU2 outer membrane protein VP28 gene, complete
cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 .....G..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

>MZ383196.1 White spot syndrome virus strain CSU3 outer membrane protein VP28 gene, complete
cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 .....G..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

>MZ383195.1 White spot syndrome virus strain CSU4 outer membrane protein VP28 gene, partial
cds

product length = 109

```

```

Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 2 .....G..... 23

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 110 ..... 91

>MZ383194.1 White spot syndrome virus strain KU2 outer membrane protein VP28 gene, partial
cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 56 .....G..... 77

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 164 ..... 145

>MZ383193.1 White spot syndrome virus strain KU1 outer membrane protein VP28 gene, partial
cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 26 .....G..... 47

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 134 ..... 115

>MW248108.1 MAG: White spot syndrome virus isolate CWG3

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 140506 .....G..... 140527

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 140614 ..... 140595

>MW248107.1 MAG: White spot syndrome virus isolate DBA1182

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 207918 .....G..... 207939

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 208026 ..... 208007

>MH883319.1 White spot syndrome virus isolate wssv_ciba_003

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 185714 .....G..... 185735

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 185822 ..... 185803

>MH883318.1 White spot syndrome virus isolate WSSV_CIBA_002

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 238014 .....G..... 238035

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 238122 ..... 238103

>MF768985.1 White spot syndrome virus isolate WSSV-AU

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 .....G..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

```

```

>MF489082.1 White spot syndrome virus isolate BAN_SH_AL-2_2017 envelope protein (VP28) gene,
partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 68 .....G..... 89

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 176 ..... 157

>MF489081.1 White spot syndrome virus isolate BAN_SH_DE-2_2017 envelope protein (VP28) gene,
partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 71 .....G..... 92

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 179 ..... 160

>MF489079.1 White spot syndrome virus isolate BAN_SH_SN-1_2017 envelope protein (VP28) gene,
partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 65 .....G..... 86

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 173 ..... 154

>MF489078.1 White spot syndrome virus isolate BAN_SH_SU-2_2017 envelope protein (VP28) gene,
partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 65 .....G..... 86

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 173 ..... 154

>MF489077.1 White spot syndrome virus isolate BAN_SH_AL-2_2015 envelope protein (VP28) gene,
partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 68 .....G..... 89

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 176 ..... 157

>MF489075.1 White spot syndrome virus isolate BAN_SH_SU-3_2015 envelope protein (VP28) gene,
partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 86 .....G..... 107

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 194 ..... 175

>KY827813.1 White spot syndrome virus strain CN04

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 235875 .....G..... 235896

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 235983 ..... 235964

>KT963943.1 White spot syndrome virus clone 26KR VP28 gene, complete cds

```

```

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 .....G..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

>KT963941.1 White spot syndrome virus clone 21KR VP28 gene, partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 57 .....G..... 78

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 165 ..... 146

>KT963939.1 White spot syndrome virus clone 19KR VP28 gene, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 .....G..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

>KT963936.1 White spot syndrome virus clone 17KRISH VP28 gene, partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 57 .....G..... 78

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 165 ..... 146

>KT963935.1 White spot syndrome virus clone 15KRISH VP28 gene, partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 .....G..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

>KT963934.1 White spot syndrome virus clone 6KRISH VP28 gene, partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 58 .....G..... 79

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 166 ..... 147

>KT963933.1 White spot syndrome virus clone 2KRISH VP28 gene, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 .....G..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

>KT995471.1 White spot syndrome virus strain CN03

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 238631 .....G..... 238652

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 238739 ..... 238720

>KR083851.1 White spot syndrome virus isolate EG23 WSV_VP28 gene, partial cds

```

```

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 20 .....G..... 41

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 128 ..... 109

>KR083850.1 White spot syndrome virus isolate EG22 WSV_VP28 gene, partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 20 .....G..... 41

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 128 ..... 109

>KR083849.1 White spot syndrome virus isolate EG21 WSV_VP28 gene, partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 20 .....G..... 41

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 128 ..... 109

>KR083838.1 White spot syndrome virus isolate EG1 VP28 gene, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 .....G..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

>KP219387.1 White spot syndrome virus isolate BAN_SH_MU-23_2014 VP28 gene, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 .....G..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

>KJ817413.1 White spot syndrome virus isolate BAN_SH_AL-1_2014 VP28 gene, partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 20 .....G..... 41

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 128 ..... 109

>JX444994.1 Shrimp white spot syndrome virus strain 05VN.VP28.HCM2.12 structural protein
VP28 (WSV421) gene, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 .....G..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

>HM484387.1 Shrimp white spot syndrome virus isolate Kadalur NM1 VP28 gene, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 .....G..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

```

```

>GQ328029.1 Shrimp white spot syndrome virus isolate 03 VP28 gene, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 ...C..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

>EF661844.1 Shrimp white spot syndrome virus coat protein (VP28) gene, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 .....G..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

>AY249434.1 Shrimp white spot syndrome virus VP28 mRNA, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 140 ...G..... 161

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 248 ..... 229

>AF502435.1 Shrimp white spot syndrome virus vp28 gene, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 ...G..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

>DQ013883.1 Shrimp white spot syndrome virus from India VP28 gene, complete cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 116 .....G..... 137

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 224 ..... 205

>KT963945.1 White spot syndrome virus clone 29KR VP28 gene, partial cds

product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 55 .....G..... 76

Reverse primer 1 TCGCTGTCAAAGGACACATC 20
Template 163 .....T 144

```

Search parameters and other details for primers VP28-140Fw – VP28-140Rv [23]

| | |
|--------------------------------------|-------|
| Number of Blast hits analyzed | 36827 |
| Entrez query | |
| Min total mismatches | 2 |
| Min 3' end mismatches | 2 |
| Defined 3' end region length | 5 |
| Mismatch threshold to ignore targets | 9 |
| Max target size | 4000 |
| Max number of Blast target sequences | 50000 |
| Blast E value | 30000 |
| Blast word size | 7 |
| Max candidate primer pairs | 500 |
| Min PCR product size | 62 |
| Max PCR product size | 1000 |
| Min Primer size | 15 |
| Opt Primer size | 20 |
| Max Primer size | 25 |
| Min Tm | 57 |
| Opt Tm | 60 |
| Max Tm | 63 |
| Max Tm difference | 3 |
| Repeat filter | AUTO |
| Low complexity filter | Yes |

Primer pair 11

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|------------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | AGGTGTGGAACAACACATCAAG | 22 | 59.05 | 45.45 | 6.00 | 1.00 |
| Rv | TGCCAACTTCATCCTCATCA | 20 | 56.82 | 45.00 | 3.00 | 2.00 |

Products on target templates

>AP027290.1 MAG: White spot syndrome virus Miyako2021 DNA, complete genome

product length = 141

Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 241108 241129

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 241248 241229

product length = 3379

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 241248 241229

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 237870 .CTT.TA..TG..... 237889

product length = 2817

Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 247971 ...C.....TTC.A... 247992

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 250787 .TT.GT.....A..... 250768

product length = 1887

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 213235 A.G...TA..... 213216

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 211349 CT.T.T....T.....T 211368

product length = 500

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 193088 ..AG.GG..G.....C 193069

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 192589 CTG..T..A..... 192608

product length = 2067

Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 159799 ...A..ATATT.....G. 159820

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 161865 CAT..T.....T..... 161846

product length = 1773

Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 159799 ...A..ATATT.....G. 159820

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 161571 CA.T.T.....A..... 161552

product length = 1743

Reverse primer 1 TGCCAACTTCATCCTCATCA 20

| | | | |
|-----------------------|--------|----------------------|--------|
| Template | 167860 | CC.T.T.....T... | 167841 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 166118 | GC.GT.T...T.T..... | 166137 |
| product length = 2585 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 151594 | CT..TC.....A..T... | 151575 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 149010 | AAA..GA...T..... | 149029 |
| product length = 1778 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 274310 | CCT.....GTA..C... | 274291 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 272533 | .CA...T.....A.C... | 272552 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACATCAAG | 22 |
| Template | 159799 | ..A..ATATT.....G. | 159820 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161874 | .AGA.T.....A..T... | 161855 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13818 | CTA..T....T.....C | 13799 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13741 | CTT.TT....T.....G | 13760 |
| product length = 3671 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 160068 | GCT.GG...G.....G | 160049 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 156398 | CAT.TT....T..... | 156417 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 151594 | CT..TC.....A..T... | 151575 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 151535 | CC.TTC....T.....T | 151554 |
| product length = 2546 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 151594 | CT..TC.....A..T... | 151575 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 149049 | CTT..T.C..C.....C | 149068 |
| product length = 3062 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 154596 | .A..TC..CTC..... | 154577 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 151535 | CC.TTC....T.....T | 151554 |
| product length = 270 | | | |

Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 159799 ..A..ATATT.....G. 159820

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 160068 GCT.GG...G.....G 160049

product length = 3500
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 160068 GCT.GG...G.....G 160049

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 156569 CTT.TT....C.....T 156588

product length = 3488
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 160068 GCT.GG...G.....G 160049

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 156581 CCT..T....CGA..... 156600

product length = 3631
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 19186 GAA..T.A..T.....C 19167

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 15556 .C.TCTA..TG..... 15575

product length = 3050
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 274310 CCT.....GTA..C.. 274291

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 271261 CTT.CT.....T.....T 271280

product length = 558
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 274310 CCT.....GTA..C.. 274291

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 273753 ATT.....AA.AT..... 273772

>AP027289.1 MAG: White spot syndrome virus 1-4 DNA, complete genome

product length = 141
 Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 241405 241426

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 241545 241526

product length = 3380
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 241545 241526

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 238166 .CTT.TA..TG..... 238185

product length = 2817
 Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 248276 ...C.....TTC.A... 248297

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 251092 .TT.GT.....A..... 251073

```

product length = 1887
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 213532 A.G...TA..... 213513

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 211646 CT.T.T....T.....T 211665

product length = 500
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 193381 ..AG..GG..G.....C 193362

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 192882 CTG..T..A..... 192901

product length = 2067
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 160072 ..A..ATATT.....G. 160093

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 162138 CAT..T.....T..... 162119

product length = 1773
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 160072 ..A..ATATT.....G. 160093

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 161844 CA.T.T.....A..... 161825

product length = 1746
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 168139 CC.T.T.....T... 168120

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 166394 GC.GT.T...T.T..... 166413

product length = 2588
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 151864 CT..TC.....A..T... 151845

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 149277 AAA..GA...T..... 149296

product length = 1781
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 274614 CCT.....GTA..C.. 274595

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 272834 .CA...T.....A.C... 272853

product length = 2076
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 160072 ..A..ATATT.....G. 160093

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 162147 .AGA.T.....A..T... 162128

product length = 78
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 13819 CTA..T....T.....C 13800

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 13742 CTT.TT....T.....G 13761

```

```

product length = 3674
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 160341 GCT.GG...G.....G 160322

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 156668 CAT.TT....T..... 156687

product length = 60
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 151864 CT..TC.....A..T... 151845

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 151805 CC.TTC....T.....T 151824

product length = 270
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 160072 ..A..ATATT.....G. 160093

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 160341 GCT.GG...G.....G 160322

product length = 3503
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 160341 GCT.GG...G.....G 160322

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 156839 CTT.TT....C.....T 156858

product length = 3491
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 160341 GCT.GG...G.....G 160322

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 156851 CCT..T....CGA..... 156870

product length = 3631
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 19187 GAA..T.A..T.....C 19168

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 15557 .C.TCTA..TG..... 15576

product length = 3053
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 274614 CCT.....GTA..C.. 274595

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 271562 CTT.CT.....T.....T 271581

product length = 558
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 274614 CCT.....GTA..C.. 274595

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 274057 ATT.....AA.AT..... 274076

>AP027288.1 MAG: White spot syndrome virus 0722-1 DNA, complete genome

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 242317 ..... 242338

```

| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 242457 | ..... | 242438 |
| product length = 3380 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 242457 | ..... | 242438 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 239078 | .CTT.TA..TG..... | 239097 |
| product length = 2817 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 249194 | ...C.....TTC.A... | 249215 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 252010 | .TT.GT.....A..... | 251991 |
| product length = 1887 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 214440 | A.G...TA..... | 214421 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 212554 | CT.T.T....T.....T | 212573 |
| product length = 500 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 194295 | ..AG.GG..G.....C | 194276 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 193796 | CTG..T..A..... | 193815 |
| product length = 2067 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 161001 | ..A..ATATT.....G. | 161022 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 163067 | CAT..T.....T..... | 163048 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 161001 | ..A..ATATT.....G. | 161022 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 162773 | CA.T.T.....A..... | 162754 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169068 | CC.T.T.....T... | 169049 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 167323 | GC.GT.T...T.T..... | 167342 |
| product length = 2588 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 152786 | CT..TC.....A..T... | 152767 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 150199 | AAA..GA...T..... | 150218 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 161001 | ..A..ATATT.....G. | 161022 |

| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 163076 | .AGA.T.....A..T... | 163057 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13870 | CTA..T....T.....C | 13851 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13793 | CTT.TT....T.....G | 13812 |
| product length = 3677 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161270 | GCT.GG...G.....G | 161251 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 157594 | CAT.TT....T..... | 157613 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 152786 | CT..TC.....A..T... | 152767 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 152727 | CC.TTC....T.....T | 152746 |
| product length = 270 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 161001 | ..A..ATATT.....G. | 161022 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161270 | GCT.GG...G.....G | 161251 |
| product length = 3503 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161270 | GCT.GG...G.....G | 161251 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 157768 | CTT.TT....C.....T | 157787 |
| product length = 3491 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161270 | GCT.GG...G.....G | 161251 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 157780 | CCT..T....CGA..... | 157799 |
| product length = 3631 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 19238 | GAA..T.A..T.....C | 19219 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 15608 | .C.TCTA..TG..... | 15627 |
| product length = 1382 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 274369 | CCT.....GTA..C.. | 274350 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 272988 | CTT.CT.....T.....T | 273007 |
| product length = 558 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |

```

Template          274369 CCT.....GTA..C.. 274350

Reverse primer    1      TGCCAACTTCATCCTCATCA 20
Template          273812 ATT.....AA.AT..... 273831

>AP027287.1 MAG: White spot syndrome virus E2 DNA, complete genome

product length = 141
Forward primer    1      AGGTGTGGAACAACACATCAAG 22
Template          243417 ..... 243438

Reverse primer    1      TGCCAACTTCATCCTCATCA 20
Template          243557 ..... 243538

product length = 3380
Reverse primer    1      TGCCAACTTCATCCTCATCA 20
Template          243557 ..... 243538

Reverse primer    1      TGCCAACTTCATCCTCATCA 20
Template          240178 .CTT.TA..TG..... 240197

product length = 2817
Forward primer    1      AGGTGTGGAACAACACATCAAG 22
Template          250294 ...C.....TTC.A... 250315

Reverse primer    1      TGCCAACTTCATCCTCATCA 20
Template          253110 .TT.GT.....A..... 253091

product length = 1887
Reverse primer    1      TGCCAACTTCATCCTCATCA 20
Template          214957 A.G...TA..... 214938

Reverse primer    1      TGCCAACTTCATCCTCATCA 20
Template          213071 CT.T.T....T.....T 213090

product length = 500
Reverse primer    1      TGCCAACTTCATCCTCATCA 20
Template          194812 ..AG.GG..G.....C 194793

Reverse primer    1      TGCCAACTTCATCCTCATCA 20
Template          194313 CTG..T..A..... 194332

product length = 2067
Forward primer    1      AGGTGTGGAACAACACATCAAG 22
Template          161488 ..A..ATATT.....G. 161509

Reverse primer    1      TGCCAACTTCATCCTCATCA 20
Template          163554 CAT..T.....T..... 163535

product length = 1773
Forward primer    1      AGGTGTGGAACAACACATCAAG 22
Template          161488 ..A..ATATT.....G. 161509

Reverse primer    1      TGCCAACTTCATCCTCATCA 20
Template          163260 CA.T.T.....A..... 163241

product length = 1746
Reverse primer    1      TGCCAACTTCATCCTCATCA 20
Template          169555 CC.T.T.....T... 169536

Reverse primer    1      TGCCAACTTCATCCTCATCA 20
Template          167810 GC.GT.T...T.T..... 167829

```

```

product length = 2588
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 153273 CT..TC.....A..T... 153254

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 150686 AAA..GA...T..... 150705

product length = 2076
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 161488 ..A..ATATT.....G. 161509

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 163563 .AGA.T.....A..T... 163544

product length = 78
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 13744 CTA..T....T.....C 13725

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 13667 CTT.TT....T.....G 13686

product length = 3677
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 161757 GCT.GG...G.....G 161738

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 158081 CAT.TT....T..... 158100

product length = 60
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 153273 CT..TC.....A..T... 153254

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 153214 CC.TTC....T.....T 153233

product length = 270
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 161488 ..A..ATATT.....G. 161509

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 161757 GCT.GG...G.....G 161738

product length = 3503
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 161757 GCT.GG...G.....G 161738

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 158255 CTT.TT....C.....T 158274

product length = 3491
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 161757 GCT.GG...G.....G 161738

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 158267 CCT..T....CGA..... 158286

product length = 3631
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 19112 GAA..T.A..T.....C 19093

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 15482 .C.TCTA..TG..... 15501

```



```

product length = 1382
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 275469 CCT.....GTA..C.. 275450

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 274088 CTT.CT.....T.....T 274107

product length = 558
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 275469 CCT.....GTA..C.. 275450

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 274912 ATT.....AA.AT..... 274931

>AP027286.1 MAG: White spot syndrome virus E1 DNA, complete genome

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 243418 ..... 243439

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 243558 ..... 243539

product length = 3380
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 243558 ..... 243539

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 240179 .CTT.TA..TG..... 240198

product length = 2817
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 250295 ...C.....TTC.A... 250316

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 253111 .TT.GT.....A..... 253092

product length = 1887
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 214958 A.G...TA..... 214939

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 213072 CT.T.T....T.....T 213091

product length = 500
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 194813 ..AG.GG..G.....C 194794

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 194314 CTG..T..A..... 194333

product length = 2067
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 161489 ..A..ATATT.....G. 161510

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 163555 CAT..T.....T..... 163536

product length = 1773
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 161489 ..A..ATATT.....G. 161510

Reverse primer 1 TGCCAACTTCATCCTCATCA 20

```

| | | | |
|-----------------------|--------|------------------------|--------|
| Template | 163261 | CA.T.T.....A..... | 163242 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169556 | CC.T.T.....T... | 169537 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 167811 | GC.GT.T...T.T..... | 167830 |
| product length = 2588 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 153274 | CT..TC.....A..T... | 153255 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 150687 | AAA..GA...T..... | 150706 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 161489 | ..A..ATATT.....G. | 161510 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 163564 | .AGA.T.....A..T... | 163545 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13744 | CTA..T....T.....C | 13725 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13667 | CTT.TT....T.....G | 13686 |
| product length = 3677 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161758 | GCT.GG...G.....G | 161739 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 158082 | CAT.TT....T..... | 158101 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 153274 | CT..TC.....A..T... | 153255 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 153215 | CC.TTC....T.....T | 153234 |
| product length = 270 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 161489 | ..A..ATATT.....G. | 161510 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161758 | GCT.GG...G.....G | 161739 |
| product length = 3503 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161758 | GCT.GG...G.....G | 161739 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 158256 | CTT.TT....C.....T | 158275 |
| product length = 3491 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161758 | GCT.GG...G.....G | 161739 |

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 158268 CCT..T....CGA..... 158287

product length = 3631

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 19112 GAA..T.A..T.....C 19093

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 15482 .C.TCTA..TG..... 15501

product length = 1382

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 275470 CCT.....GTA..C.. 275451

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 274089 CTT.CT.....T.....T 274108

product length = 558

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 275470 CCT.....GTA..C.. 275451

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 274913 ATT.....AA.AT..... 274932

>AP027285.1 MAG: White spot syndrome virus S14 DNA, complete genome

product length = 141

Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 243352 243373

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 243492 243473

product length = 3380

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 243492 243473

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 240113 .CTT.TA..TG..... 240132

product length = 2817

Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 250229 ...C.....TTC.A... 250250

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 253045 .TT.GT.....A..... 253026

product length = 1887

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 214892 A.G...TA..... 214873

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 213006 CT.T.T....T.....T 213025

product length = 500

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 194747 ..AG.GG..G.....C 194728

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 194248 CTG..T..A..... 194267

product length = 2067

Forward primer 1 AGGTGTGGAACAACACATCAAG 22

| | | | |
|-----------------------|--------|------------------------|--------|
| Template | 161423 | ..A..ATATT.....G. | 161444 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 163489 | CAT..T.....T..... | 163470 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 161423 | ..A..ATATT.....G. | 161444 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 163195 | CA.T.T.....A..... | 163176 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169490 | CC.T.T.....T... | 169471 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 167745 | GC.GT.T...T.T..... | 167764 |
| product length = 2588 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 153208 | CT..TC.....A..T... | 153189 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 150621 | AAA..GA...T..... | 150640 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 161423 | ..A..ATATT.....G. | 161444 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 163498 | .AGA.T.....A..T... | 163479 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13744 | CTA..T....T.....C | 13725 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13667 | CTT.TT....T.....G | 13686 |
| product length = 3677 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161692 | GCT.GG...G.....G | 161673 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 158016 | CAT.TT....T..... | 158035 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 153208 | CT..TC.....A..T... | 153189 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 153149 | CC.TTC....T.....T | 153168 |
| product length = 270 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 161423 | ..A..ATATT.....G. | 161444 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161692 | GCT.GG...G.....G | 161673 |
| product length = 3503 | | | |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161692 | GCT.GG...G.....G | 161673 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 158190 | CTT.TT....C.....T | 158209 |

product length = 3491

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161692 | GCT.GG...G.....G | 161673 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 158202 | CCT..T....CGA..... | 158221 |

product length = 3631

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 19112 | GAA..T.A..T.....C | 19093 |

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 15482 | .C.TCTA..TG..... | 15501 |

product length = 1382

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 275404 | CCT.....GTA..C.. | 275385 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 274023 | CTT.CT.....T.....T | 274042 |

product length = 558

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 275404 | CCT.....GTA..C.. | 275385 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 274847 | ATT.....AA.AT..... | 274866 |

>AP027284.1 MAG: White spot syndrome virus Pc2020 DNA, complete genome

product length = 141

| | | | |
|----------------|--------|----------------------|--------|
| Forward primer | 1 | AGGTGTGGAACAACATCAAG | 22 |
| Template | 248763 | ..... | 248784 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 248903 | ..... | 248884 |

product length = 3380

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 248903 | ..... | 248884 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 245524 | .CTT.TA..TG..... | 245543 |

product length = 2817

| | | | |
|----------------|--------|----------------------|--------|
| Forward primer | 1 | AGGTGTGGAACAACATCAAG | 22 |
| Template | 255637 | ...C.....TTC.A... | 255658 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 258453 | .TT.GT.....A..... | 258434 |

product length = 1887

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 220884 | A.G...TA..... | 220865 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 218998 | CT.T.T....T.....T | 219017 |

```

product length = 499
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      200730  ..AG.GG..G.....C 200711

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      200232  CTG..T..A..... 200251

product length = 2067
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      167395  ..A..ATATT.....G. 167416

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      169461  CAT..T.....T..... 169442

product length = 1773
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      167395  ..A..ATATT.....G. 167416

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      169167  CA.T.T.....A..... 169148

product length = 1746
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      175462  CC.T.T.....T... 175443

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      173717  GC.GT.T...T.T..... 173736

product length = 2591
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      159183  CT..TC.....A..T... 159164

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      156593  AAA..GA...T..... 156612

product length = 2076
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      167395  ..A..ATATT.....G. 167416

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      169470  .AGA.T.....A..T... 169451

product length = 78
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      13619  CTA..T....T.....C 13600

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      13542  CTT.TT....T.....G 13561

product length = 3674
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      167664  GCT.GG...G.....G 167645

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      163991  CAT.TT....T..... 164010

product length = 60
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      159183  CT..TC.....A..T... 159164

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      159124  CC.TTC....T.....T 159143

```

```

product length = 270
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template       167395  ..A..ATATT.....G.  167416

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template       167664  GCT.GG...G.....G  167645

product length = 3503
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template       167664  GCT.GG...G.....G  167645

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template       164162  CTT.TT....C.....T  164181

product length = 3491
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template       167664  GCT.GG...G.....G  167645

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template       164174  CCT..T....CGA.....  164193

product length = 3631
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template       18987   GAA..T.A..T.....C  18968

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template       15357   .C.TCTA..TG.....  15376

product length = 1507
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template       284613  CCT.....GTA..C..  284594

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template       283107  CTT.CT.....T.....T  283126

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template       284613  CCT.....GTA..C..  284594

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template       284056  ATT.....AA.AT.....  284075

>AP027283.1 MAG: White spot syndrome virus 79 DNA, complete genome

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template       246120  .....  246141

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template       246260  .....  246241

product length = 3380
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template       246260  .....  246241

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template       242881  .CTT.TA..TG.....  242900

product length = 2817
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template       252997  ...C.....TTC.A...  253018

```

| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 255813 | .TT.GT.....A..... | 255794 |
| product length = 1887 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 218227 | A.G...TA..... | 218208 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 216341 | CT.T.T....T.....T | 216360 |
| product length = 500 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 198085 | ..AG.GG..G.....C | 198066 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 197586 | CTG..T..A..... | 197605 |
| product length = 2067 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 164725 | ..A..ATATT.....G. | 164746 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 166791 | CAT..T.....T..... | 166772 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 164725 | ..A..ATATT.....G. | 164746 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 166497 | CA.T.T.....A..... | 166478 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 172792 | CC.T.T.....T... | 172773 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 171047 | GC.GT.T...T.T..... | 171066 |
| product length = 2594 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 156510 | CT..TC.....A..T... | 156491 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 153917 | AAA..GA...T..... | 153936 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 164725 | ..A..ATATT.....G. | 164746 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 166800 | .AGA.T.....A..T... | 166781 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13854 | CTA..T....T.....C | 13835 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13777 | CTT.TT....T.....G | 13796 |
| product length = 3674 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 164994 | GCT.GG...G.....G | 164975 |


```

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       161321 CAT.TT....T..... 161340

product length = 60
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       156510 CT..TC.....A..T... 156491

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       156451 CC.TTC....T.....T 156470

product length = 270
Forward primer 1      AGGTGTGGAACAACATCAAG 22
Template       164725 ..A..ATATT.....G. 164746

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       164994 GCT.GG...G.....G 164975

product length = 3503
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       164994 GCT.GG...G.....G 164975

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       161492 CTT.TT....C.....T 161511

product length = 3491
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       164994 GCT.GG...G.....G 164975

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       161504 CCT..T....CGA..... 161523

product length = 3631
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       19222  GAA..T.A..T.....C 19203

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       15592  .C.TCTA..TG..... 15611

product length = 3160
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       281221 CCT.....GTA..C.. 281202

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       278062 CTT.CT.....T.....T 278081

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       281221 CCT.....GTA..C.. 281202

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       280664 ATT.....AA.AT..... 280683

>AP027282.1 MAG: White spot syndrome virus JP04 DNA, complete genome

product length = 141
Forward primer 1      AGGTGTGGAACAACATCAAG 22
Template       249878 ..... 249899

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       250018 ..... 249999

product length = 3380

```

| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 250018 | ..... | 249999 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 246639 | .CTT.TA..TG..... | 246658 |
| product length = 2817 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 256756 | ...C.....TTC.A... | 256777 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 259572 | .TT.GT.....A..... | 259553 |
| product length = 1887 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 222001 | A.G...TA..... | 221982 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 220115 | CT.T.T....T.....T | 220134 |
| product length = 500 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 201853 | ..AG.GG..G.....C | 201834 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 201354 | CTG..T..A..... | 201373 |
| product length = 2067 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 168028 | ..A..ATATT.....G. | 168049 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 170094 | CAT..T.....T..... | 170075 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 168028 | ..A..ATATT.....G. | 168049 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169800 | CA.T.T.....A..... | 169781 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 176095 | CC.T.T.....T... | 176076 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 174350 | GC.GT.T...T.T..... | 174369 |
| product length = 2585 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 159816 | CT..TC.....A..T... | 159797 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 157232 | AAA..GA...T..... | 157251 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 168028 | ..A..ATATT.....G. | 168049 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 170103 | .AGA.T.....A..T... | 170084 |

```

product length = 78
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      13563 CTA..T....T.....C 13544

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      13486 CTT.TT....T.....G 13505

product length = 3674
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      168297 GCT.GG...G.....G 168278

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      164624 CAT.TT....T..... 164643

product length = 60
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      159816 CT..TC.....A..T... 159797

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      159757 CC.TTC....T.....T 159776

product length = 270
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      168028 ..A..ATATT.....G. 168049

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      168297 GCT.GG...G.....G 168278

product length = 3503
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      168297 GCT.GG...G.....G 168278

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      164795 CTT.TT....C.....T 164814

product length = 3491
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      168297 GCT.GG...G.....G 168278

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      164807 CCT..T....CGA..... 164826

product length = 3631
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      18931 GAA..T.A..T.....C 18912

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      15301 .C.TCTA..TG..... 15320

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      287168 CCT.....GTA..C.. 287149

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      286611 ATT.....AA.AT..... 286630

>AP027281.1 MAG: White spot syndrome virus JP03 DNA, complete genome

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      250062 ..... 250083

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      250202 ..... 250183

```

```

product length = 3380
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 250202 ..... 250183

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 246823 .CTT.TA..TG..... 246842

product length = 2817
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 256940 ...C.....TTC.A... 256961

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 259756 .TT.GT.....A..... 259737

product length = 1887
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 222185 A.G...TA..... 222166

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 220299 CT.T.T....T.....T 220318

product length = 500
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 202040 ..AG.GG..G.....C 202021

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 201541 CTG..T..A..... 201560

product length = 2067
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 168722 ..A..ATATT.....G. 168743

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 170788 CAT..T.....T..... 170769

product length = 1773
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 168722 ..A..ATATT.....G. 168743

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 170494 CA.T.T.....A..... 170475

product length = 1746
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 176789 CC.T.T.....T... 176770

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 175044 GC.GT.T...T.T..... 175063

product length = 2585
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 160507 CT..TC.....A..T... 160488

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 157923 AAA..GA...T..... 157942

product length = 2076
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 168722 ..A..ATATT.....G. 168743

Reverse primer 1 TGCCAACTTCATCCTCATCA 20

```

Template 170797 .AGA.T.....A..T... 170778

product length = 78

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 13455 CTA..T....T.....C 13436

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 13378 CTT.TT....T.....G 13397

product length = 3674

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 168991 GCT.GG...G.....G 168972

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 165318 CAT.TT....T..... 165337

product length = 60

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 160507 CT..TC.....A..T... 160488

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 160448 CC.TTC....T.....T 160467

product length = 270

Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 168722 ..A..ATATT.....G. 168743

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 168991 GCT.GG...G.....G 168972

product length = 3503

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 168991 GCT.GG...G.....G 168972

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 165489 CTT.TT....C.....T 165508

product length = 3491

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 168991 GCT.GG...G.....G 168972

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 165501 CCT..T....CGA..... 165520

product length = 3631

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 18823 GAA..T.A..T.....C 18804

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 15193 .C.TCTA..TG..... 15212

product length = 558

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 287349 CCT.....GTA..C.. 287330

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 286792 ATT.....AA.AT..... 286811

>AP027280.1 MAG: White spot syndrome virus JP02 DNA, complete genome

product length = 141

Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 249224 249245

| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 249364 | ..... | 249345 |
| product length = 3380 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 249364 | ..... | 249345 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 245985 | .CTT.TA..TG..... | 246004 |
| product length = 2817 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 256101 | ...C.....TTC.A... | 256122 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 258917 | .TT.GT.....A..... | 258898 |
| product length = 1887 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 221026 | A.G...TA..... | 221007 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 219140 | CT.T.T....T.....T | 219159 |
| product length = 500 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 200884 | ..AG.GG..G.....C | 200865 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 200385 | CTG..T..A..... | 200404 |
| product length = 2067 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 167545 | ..A..ATATT.....G. | 167566 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169611 | CAT..T.....T..... | 169592 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 167545 | ..A..ATATT.....G. | 167566 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169317 | CA.T.T.....A..... | 169298 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 175612 | CC.T.T.....T... | 175593 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 173867 | GC.GT.T...T.T..... | 173886 |
| product length = 2588 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 159333 | CT..TC.....A..T... | 159314 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 156746 | AAA..GA...T..... | 156765 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |

```

Template      167545  ..A..ATATT.....G.  167566

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      169620  .AGA.T.....A..T...  169601

product length = 78
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      13680  CTA..T....T.....C  13661

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      13603  CTT.TT....T.....G  13622

product length = 3674
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      167814  GCT.GG...G.....G  167795

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      164141  CAT.TT....T.....  164160

product length = 60
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      159333  CT..TC.....A..T...  159314

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      159274  CC.TTC....T.....T  159293

product length = 2714
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      294172  .CAAT.....TT...G..  294153

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      291459  .ATAG.....T.....G  291478

product length = 270
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      167545  ..A..ATATT.....G.  167566

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      167814  GCT.GG...G.....G  167795

product length = 3503
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      167814  GCT.GG...G.....G  167795

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      164312  CTT.TT....C.....T  164331

product length = 3491
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      167814  GCT.GG...G.....G  167795

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      164324  CCT..T....CGA.....  164343

product length = 3631
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      19048  GAA..T.A..T.....C  19029

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      15418  .C.TCTA..TG.....  15437

product length = 1332

```

```

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      294172  .CAAT.....TT...G.. 294153

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      292841  CTT..TA...T.....C 292860

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      297680  CCT.....GTA..C.. 297661

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      297123  ATT.....AA.AT..... 297142

>AP027279.1 MAG: White spot syndrome virus JP01B DNA, complete genome

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      248751  ..... 248772

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      248891  ..... 248872

product length = 3380
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      248891  ..... 248872

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      245512  .CTT.TA..TG..... 245531

product length = 2817
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      255628  ...C.....TTC.A... 255649

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      258444  .TT.GT.....A..... 258425

product length = 1887
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      220819  A.G...TA..... 220800

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      218933  CT.T.T....T.....T 218952

product length = 500
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      200677  ..AG.GG..G.....C 200658

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      200178  CTG..T..A..... 200197

product length = 2067
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      167332  ..A..ATATT.....G. 167353

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      169398  CAT..T.....T..... 169379

product length = 1773
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      167332  ..A..ATATT.....G. 167353

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      169104  CA.T.T.....A..... 169085

```



```

product length = 1746
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 175399 CC.T.T.....T... 175380

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 173654 GC.GT.T...T.T..... 173673

product length = 2588
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 159123 CT..TC.....A..T... 159104

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 156536 AAA..GA...T..... 156555

product length = 2076
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 167332 ..A..ATATT.....G. 167353

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 169407 .AGA.T.....A..T... 169388

product length = 78
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 13617 CTA..T.....T.....C 13598

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 13540 CTT.TT....T.....G 13559

product length = 3674
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 167601 GCT.GG...G.....G 167582

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 163928 CAT.TT....T..... 163947

product length = 60
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 159123 CT..TC.....A..T... 159104

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 159064 CC.TTC....T.....T 159083

product length = 270
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 167332 ..A..ATATT.....G. 167353

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 167601 GCT.GG...G.....G 167582

product length = 3503
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 167601 GCT.GG...G.....G 167582

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 164099 CTT.TT....C.....T 164118

product length = 3491
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 167601 GCT.GG...G.....G 167582

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 164111 CCT..T....CGA..... 164130

```

```

product length = 3631
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      18985   GAA..T.A..T.....C 18966

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      15355   .C.TCTA..TG..... 15374

product length = 1045
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      280041  CCT.....GTA..C.. 280022

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      278997  CTT.CT.....T.....T 279016

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      280041  CCT.....GTA..C.. 280022

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      279484  ATT.....AA.AT..... 279503

>AP027278.1 MAG: White spot syndrome virus JP01A DNA, complete genome

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      248778  ..... 248799

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      248918  ..... 248899

product length = 3380
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      248918  ..... 248899

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      245539  .CTT.TA..TG..... 245558

product length = 2817
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      255654  ...C.....TTC.A... 255675

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      258470  .TT.GT.....A..... 258451

product length = 1887
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      220846  A.G...TA..... 220827

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      218960  CT.T.T....T.....T 218979

product length = 500
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      200704  ..AG.GG..G.....C 200685

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      200205  CTG..T..A..... 200224

product length = 2067
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      167364  ..A..ATATT.....G. 167385

```

| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169430 | CAT..T.....T..... | 169411 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 167364 | ..A..ATATT.....G. | 167385 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169136 | CA.T.T.....A..... | 169117 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 175431 | CC.T.T.....T... | 175412 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 173686 | GC.GT.T...T.T..... | 173705 |
| product length = 2594 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 159152 | CT..TC.....A..T... | 159133 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 156559 | AAA..GA...T..... | 156578 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 167364 | ..A..ATATT.....G. | 167385 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169439 | .AGA.T.....A..T... | 169420 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13626 | CTA..T....T.....C | 13607 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13549 | CTT.TT....T.....G | 13568 |
| product length = 3674 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 167633 | GCT.GG...G.....G | 167614 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 163960 | CAT.TT....T..... | 163979 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 159152 | CT..TC.....A..T... | 159133 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 159093 | CC.TTC....T.....T | 159112 |
| product length = 270 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 167364 | ..A..ATATT.....G. | 167385 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 167633 | GCT.GG...G.....G | 167614 |
| product length = 3503 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 167633 | GCT.GG...G.....G | 167614 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 164131 | CTT.TT....C.....T | 164150 |

product length = 3491

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 167633 | GCT.GG...G.....G | 167614 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 164143 | CCT..T....CGA..... | 164162 |

product length = 3631

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 18994 | GAA..T.A..T.....C | 18975 |

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 15364 | .C.TCTA..TG..... | 15383 |

product length = 1507

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 286092 | CCT.....GTA..C.. | 286073 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 284586 | CTT.CT.....T.....T | 284605 |

product length = 558

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 286092 | CCT.....GTA..C.. | 286073 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 285535 | ATT.....AA.AT..... | 285554 |

>ON457602.1 White spot syndrome virus isolate GoC18, partial genome

product length = 141

| | | | |
|----------------|-------|------------------------|-------|
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 80623 | ..... | 80602 |

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 80483 | ..... | 80502 |

product length = 3380

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 83862 | .CTT.TA..TG..... | 83843 |

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 80483 | ..... | 80502 |

product length = 2817

| | | | |
|----------------|-------|------------------------|-------|
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 73746 | ...C.....TTC.A... | 73725 |

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 70930 | .TT.GT.....A..... | 70949 |

product length = 1887

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 109793 | CT.T.T....T.....T | 109774 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 107907 | A.G...TA..... | 107926 |

product length = 500

| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 128554 | CTG..T..A..... | 128535 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 128055 | ..AG.GG..G.....C | 128074 |
| product length = 2067 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 161384 | ..A..ATATT.....G. | 161363 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 159318 | CAT..T.....T..... | 159337 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 161384 | ..A..ATATT.....G. | 161363 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 159612 | CA.T.T.....A..... | 159631 |
| product length = 2588 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 172177 | AAA..GA...T..... | 172158 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169590 | CT..TC.....A..T... | 169609 |
| product length = 2686 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 48676 | .CA...T.....A.C... | 48657 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 45991 | CCT.....GTA..C... | 46010 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 155065 | GC.GT.T...T.T..... | 155046 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 153320 | CC.T.T.....T... | 153339 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 161384 | ..A..ATATT.....G. | 161363 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 159309 | .AGA.T.....A..T... | 159328 |
| product length = 3671 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 164785 | CAT.TT....T..... | 164766 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161115 | GCT.GG...G.....G | 161134 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169649 | CC.TTC....T.....T | 169630 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169590 | CT..TC.....A..T... | 169609 |

```

product length = 78
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      18949 CTT.TT....T.....G 18930

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      18872 CTA..T....T.....C 18891

product length = 270
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      161384 ..A..ATATT.....G. 161363

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      161115 GCT.GG...G.....G 161134

product length = 3500
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      164614 CTT.TT....C.....T 164595

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      161115 GCT.GG...G.....G 161134

product length = 3958
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      49948 CTT.CT.....T.....T 49929

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      45991 CCT.....GTA..C.. 46010

product length = 3488
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      164602 CCT..T....CGA..... 164583

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      161115 GCT.GG...G.....G 161134

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      46548 ATT.....AA.AT..... 46529

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      45991 CCT.....GTA..C.. 46010

product length = 3631
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      17134 .C.TCTA..TG..... 17115

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      13504 GAA..T.A..T.....C 13523

>OM350393.2 White spot syndrome virus isolate WSSV-Peru, partial genome

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      233926 ..... 233947

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      234066 ..... 234047

product length = 3380
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      234066 ..... 234047

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      230687 .CTT.TA..TG..... 230706

```

```

product length = 2817
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 240800 ...C.....TTC.A... 240821

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 243616 .TT.GT.....A..... 243597

product length = 1887
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 211289 A.G...TA..... 211270

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 209403 CT.T.T....T.....T 209422

product length = 500
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 191150 ..AG.GG..G.....C 191131

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 190651 CTG..T..A..... 190670

product length = 2064
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 159742 ..A..ATATT.....G. 159763

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 161805 CAT..T.....T..... 161786

product length = 1770
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 159742 ..A..ATATT.....G. 159763

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 161511 CA.T.T.....A..... 161492

product length = 1716
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 167776 CC.T.T.....T... 167757

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 166061 GC.GT.T...T.T..... 166080

product length = 2585
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 151152 CT..TC.....A..T... 151133

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 148568 AAA..GA...T..... 148587

product length = 2073
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 159742 ..A..ATATT.....G. 159763

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 161814 .AGA.T.....A..T... 161795

product length = 78
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 11535 CTA..T....T.....C 11516

Reverse primer 1 TGCCAACTTCATCCTCATCA 20

```

```

Template          11458  CTT.TT....T.....G  11477

product length = 3674
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          160011 GCT.GG...G.....G  159992

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          156338 CAT.TT....T.....  156357

product length = 60
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          151152 CT..TC.....A..T...  151133

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          151093 CC.TTC....T.....T  151112

product length = 270
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          159742 ..A..ATATT.....G.  159763

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          160011 GCT.GG...G.....G  159992

product length = 3503
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          160011 GCT.GG...G.....G  159992

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          156509 CTT.TT....C.....T  156528

product length = 3491
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          160011 GCT.GG...G.....G  159992

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          156521 CCT..T....CGA.....  156540

product length = 3631
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          16903  GAA..T.A..T.....C  16884

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          13273  .C.TCTA..TG.....  13292

product length = 1391
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          264723 CCT.....GTA..C..  264704

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          263333 CTT.CT.....T.....T  263352

product length = 558
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          264723 CCT.....GTA..C..  264704

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          264166 ATT.....AA.AT.....  264185

>NC_075105.1 White spot syndrome virus, complete genome

product length = 141
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          249237 .....  249258

```


| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 249377 | ..... | 249358 |
| product length = 3380 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 249377 | ..... | 249358 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 245998 | .CTT.TA..TG..... | 246017 |
| product length = 2817 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 256114 | ...C.....TTC.A... | 256135 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 258930 | .TT.GT.....A..... | 258911 |
| product length = 1887 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 221036 | A.G...TA..... | 221017 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 219150 | CT.T.T....T.....T | 219169 |
| product length = 500 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 200894 | ..AG.GG..G.....C | 200875 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 200395 | CTG..T..A..... | 200414 |
| product length = 2067 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 167558 | ..A..ATATT.....G. | 167579 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169624 | CAT..T.....T..... | 169605 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 167558 | ..A..ATATT.....G. | 167579 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169330 | CA.T.T.....A..... | 169311 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 175625 | CC.T.T.....T... | 175606 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 173880 | GC.GT.T...T.T..... | 173899 |
| product length = 2588 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 159346 | CT..TC.....A..T... | 159327 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 156759 | AAA..GA...T..... | 156778 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |

```

Template      167558  ..A..ATATT.....G.  167579

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      169633  .AGA.T.....A..T...  169614

product length = 78
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      13680  CTA..T....T.....C  13661

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      13603  CTT.TT....T.....G  13622

product length = 3674
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      167827  GCT.GG...G.....G  167808

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      164154  CAT.TT....T.....  164173

product length = 60
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      159346  CT..TC.....A..T...  159327

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      159287  CC.TTC....T.....T  159306

product length = 270
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      167558  ..A..ATATT.....G.  167579

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      167827  GCT.GG...G.....G  167808

product length = 3503
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      167827  GCT.GG...G.....G  167808

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      164325  CTT.TT....C.....T  164344

product length = 3491
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      167827  GCT.GG...G.....G  167808

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      164337  CCT..T....CGA.....  164356

product length = 3631
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      19048  GAA..T.A..T.....C  19029

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      15418  .C.TCTA..TG.....  15437

product length = 3549
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      291238  CCT.....GTA..C...  291219

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      287690  CTT..TA...T.....C  287709

product length = 558

```

```

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       291238 CCT.....GTA..C.. 291219

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       290681 ATT.....AA..AT..... 290700

>MZ383194.1 White spot syndrome virus strain KU2 outer membrane protein VP28 gene, partial
cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       308      ..... 329

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       448      ..... 429

>MZ383193.1 White spot syndrome virus strain KU1 outer membrane protein VP28 gene, partial
cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       278      ..... 299

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       418      ..... 399

>MW248108.1 MAG: White spot syndrome virus isolate CWG3

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       140758 ..... 140779

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       140898 ..... 140879

product length = 3380
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       140898 ..... 140879

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       137519 .CTT.TA..TG..... 137538

product length = 1887
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       115081 A.G...TA..... 115062

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       113195 CT.T.T....T.....T 113214

product length = 500
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       94918 ..AG.GG..G.....C 94899

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       94419 CTG..T..A..... 94438

product length = 2067
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       63739 ..A..ATATT.....G. 63760

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       65805 CAT..T.....T..... 65786

product length = 1773
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       63739 ..A..ATATT.....G. 63760

```

| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 65511 | CA.T.T.....A..... | 65492 |
| product length = 1743 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 71803 | CC.T.T.....T... | 71784 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 70061 | GC.GT.T...T.T..... | 70080 |
| product length = 2587 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 55525 | CT..TC.....A..T... | 55506 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 52939 | AAA..GA...T..... | 52958 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 63739 | ..A..ATATT.....G. | 63760 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 65814 | .AGA.T.....A..T... | 65795 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 198576 | CTA..T....T.....C | 198557 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 198499 | CTT.TT....T.....G | 198518 |
| product length = 3674 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 64008 | GCT.GG...G.....G | 63989 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 60335 | CAT.TT....T..... | 60354 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 55525 | CT..TC.....A..T... | 55506 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 55466 | CC.TTC....T.....T | 55485 |
| product length = 270 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 63739 | ..A..ATATT.....G. | 63760 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 64008 | GCT.GG...G.....G | 63989 |
| product length = 3503 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 64008 | GCT.GG...G.....G | 63989 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 60506 | CTT.TT....C.....T | 60525 |
| product length = 3491 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |

```

Template          64008  GCT.GG...G.....G  63989

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          60518  CCT..T....CGA.....  60537

>MW248107.1 MAG: White spot syndrome virus isolate DBA1182

product length = 141
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          208170  .....  208191

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          208310  .....  208291

product length = 3380
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          208310  .....  208291

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          204931  .CTT.TA..TG.....  204950

product length = 2817
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          215047  ...C.....TTC.A...  215068

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          217863  .TT.GT.....A.....  217844

product length = 1887
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          180609  A.G...TA.....  180590

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          178723  CT.T.T....T.....T  178742

product length = 2067
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          129277  ..A..ATATT.....G.  129298

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          131343  CAT..T.....T.....  131324

product length = 1773
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          129277  ..A..ATATT.....G.  129298

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          131049  CA.T.T.....A.....  131030

product length = 1746
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          137344  CC.T.T.....T...  137325

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          135599  GC.GT.T...T.T.....  135618

product length = 2588
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          121066  CT..TC.....A..T...  121047

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          118479  AAA..GA...T.....  118498

```

product length = 2076
 Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 129277 ..A..ATATT.....G. 129298

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 131352 .AGA.T.....A..T... 131333

product length = 78
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 266114 CTA..T....T.....C 266095

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 266037 CTT.TT....T.....G 266056

product length = 3671
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 129546 GCT.GG...G.....G 129527

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 125876 CAT.TT....T..... 125895

product length = 60
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 121066 CT..TC.....A..T... 121047

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 121007 CC.TTC....T.....T 121026

product length = 270
 Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 129277 ..A..ATATT.....G. 129298

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 129546 GCT.GG...G.....G 129527

product length = 3500
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 129546 GCT.GG...G.....G 129527

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 126047 CTT.TT....C.....T 126066

product length = 3488
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 129546 GCT.GG...G.....G 129527

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 126059 CCT..T....CGA..... 126078

>MW248106.1 MAG: White spot syndrome virus isolate PG1

product length = 141
 Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 143136 143157

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 143276 143257

product length = 3380
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 143276 143257

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 139897 .CTT.TA..TG..... 139916

```

product length = 2817
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      150025  ...C.....TTC.A...  150046

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      152841  .TT.GT.....A.....  152822

product length = 1887
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      115204  A.G...TA.....  115185

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      113318  CT.T.T....T.....T  113337

product length = 500
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      95065  ..AG.GG..G.....C  95046

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      94566  CTG..T..A.....  94585

product length = 1773
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      63640  ..A..ATATT.....G.  63661

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      65412  CA.T.T.....A.....  65393

product length = 1743
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      71704  CC.T.T.....T...  71685

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      69962  GC.GT.T...T.T.....  69981

product length = 2588
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      55428  CT..TC.....A..T...  55409

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      52841  AAA..GA...T.....  52860

product length = 2067
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      63640  ..A..ATATT.....G.  63661

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      65706  CAT..T.....T...C..  65687

product length = 2076
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      63640  ..A..ATATT.....G.  63661

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      65715  .AGA.T.....A..T...  65696

product length = 78
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      202316  CTA..T....T.....C  202297

Reverse primer 1      TGCCAACTTCATCCTCATCA  20

```

Template 202239 CTT.TT....T.....G 202258

product length = 3674

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 63909 GCT.GG...G.....G 63890

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 60236 CAT.TT....T..... 60255

product length = 60

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 55428 CT..TC.....A..T... 55409

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 55369 CC.TTC....T.....T 55388

product length = 270

Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 63640 ..A..ATATT.....G. 63661

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 63909 GCT.GG...G.....G 63890

product length = 3503

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 63909 GCT.GG...G.....G 63890

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 60407 CTT.TT....C.....T 60426

product length = 3491

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 63909 GCT.GG...G.....G 63890

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 60419 CCT..T....CGA..... 60438

product length = 3631

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 207684 GAA..T.A..T.....C 207665

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 204054 .C.TCTA..TG..... 204073

product length = 1414

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 174806 CCT.....GTA..C.. 174787

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 173393 CTT.CT.....T.....T 173412

product length = 558

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 174806 CCT.....GTA..C.. 174787

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 174249 ATT.....AA.AT..... 174268

>MT363797.1 White spot syndrome virus strain SaWSSV31 envelope protein VP28 gene, partial cds

product length = 141

Forward primer 1 AGGTGTGGAACAACACATCAAG 22


```

Template          122 ..... 143

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          262 ..... 243

>MT363795.1 White spot syndrome virus strain SaWSSV13 envelope protein VP28 gene, partial
cds

product length = 141
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          215 ..... 236

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          355 ..... 336

>MT363787.1 White spot syndrome virus strain SaWSSV2 envelope protein VP28 gene, partial cds

product length = 141
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          215 ..... 236

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          355 ..... 336

>MT363786.1 White spot syndrome virus strain SaWSSV1 envelope protein VP28 gene, partial cds

product length = 141
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          215 ..... 236

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          355 ..... 336

>MN840357.1 White spot syndrome virus isolate CN_95_DFPE

product length = 141
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          249202 ..... 249223

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          249342 ..... 249323

product length = 3380
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          249342 ..... 249323

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          245963 ..CTT.TA..TG..... 245982

product length = 2817
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          256079 ...C.....TTC.A... 256100

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          258895 .TT.GT.....A..... 258876

product length = 1887
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          221021 A.G...TA..... 221002

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          219135 CT.T.T....T.....T 219154

product length = 500
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          200879 ..AG.GG..G.....C 200860

```

| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 200380 | CTG..T..A..... | 200399 |
| product length = 2067 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 167545 | ..A..ATATT.....G. | 167566 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169611 | CAT..T.....T..... | 169592 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 167545 | ..A..ATATT.....G. | 167566 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169317 | CA.T.T.....A..... | 169298 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 175612 | CC.T.T.....T... | 175593 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 173867 | GC.GT.T...T.T..... | 173886 |
| product length = 2588 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 159333 | CT..TC.....A..T... | 159314 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 156746 | AAA..GA...T..... | 156765 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 167545 | ..A..ATATT.....G. | 167566 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 169620 | .AGA.T.....A..T... | 169601 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13680 | CTA..T....T.....C | 13661 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13603 | CTT.TT....T.....G | 13622 |
| product length = 3674 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 167814 | GCT.GG...G.....G | 167795 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 164141 | CAT.TT....T..... | 164160 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 159333 | CT..TC.....A..T... | 159314 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 159274 | CC.TTC....T.....T | 159293 |
| product length = 270 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 167545 | ..A..ATATT.....G. | 167566 |

```

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       167814 GCT.GG...G.....G 167795

product length = 3503
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       167814 GCT.GG...G.....G 167795

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       164312 CTT.TT....C.....T 164331

product length = 3491
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       167814 GCT.GG...G.....G 167795

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       164324 CCT..T....CGA..... 164343

product length = 3631
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       19048  GAA..T.A..T.....C 19029

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       15418  .C.TCTA..TG..... 15437

product length = 3549
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       291209 CCT.....GTA..C.. 291190

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       287661 CTT..TA...T.....C 287680

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       291209 CCT.....GTA..C.. 291190

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       290652 ATT.....AA.AT..... 290671

>MH883319.1 White spot syndrome virus isolate wssv_ciba_003

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       185966 ..... 185987

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       186106 ..... 186087

product length = 3380
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       186106 ..... 186087

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       182727 .CTT.TA..TG..... 182746

product length = 2817
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       192843 ...C.....TTC.A... 192864

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       195659 .TT.GT.....A..... 195640

product length = 1887

```

| | | | |
|-----------------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 158108 | A.G...TA..... | 158089 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 156222 | CT.T.T....T.....T | 156241 |
| product length = 2067 | | | |
| Forward primer | 1 | AGGTGTGGAACAACATCAAG | 22 |
| Template | 106770 | ..A..ATATT.....G. | 106791 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 108836 | CAT..T.....T..... | 108817 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACATCAAG | 22 |
| Template | 106770 | ..A..ATATT.....G. | 106791 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 108542 | CA.T.T.....A..... | 108523 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 114837 | CC.T.T.....T... | 114818 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 113092 | GC.GT.T...T.T..... | 113111 |
| product length = 2588 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 98556 | CT..TC.....A..T... | 98537 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 95969 | AAA..GA...T..... | 95988 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACATCAAG | 22 |
| Template | 106770 | ..A..ATATT.....G. | 106791 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 108845 | .AGA.T.....A..T... | 108826 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 238735 | CTA..T....T.....C | 238716 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 238658 | CTT.TT....T.....G | 238677 |
| product length = 3674 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 107039 | GCT.GG...G.....G | 107020 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 103366 | CAT.TT....T..... | 103385 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 98556 | CT..TC.....A..T... | 98537 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 98497 | CC.TTC....T.....T | 98516 |

```

product length = 1414
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 216919 CCT.....GTA..C.. 216900

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 215506 CTT..T.....T.....T 215525

product length = 270
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 106770 ..A..ATATT.....G. 106791

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 107039 GCT.GG...G.....G 107020

product length = 3503
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 107039 GCT.GG...G.....G 107020

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 103537 CTT.TT....C.....T 103556

product length = 3491
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 107039 GCT.GG...G.....G 107020

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 103549 CCT..T....CGA..... 103568

product length = 3631
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 244103 GAA..T.A..T.....C 244084

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 240473 .C.TCTA..TG..... 240492

product length = 1420
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 216919 CCT.....GTA..C.. 216900

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 215500 CTT.CT.....T.....T 215519

product length = 558
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 216919 CCT.....GTA..C.. 216900

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 216362 ATT.....AA.AT..... 216381

>MH883318.1 White spot syndrome virus isolate WSSV_CIBA_002

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 238266 ..... 238287

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 238406 ..... 238387

product length = 3379
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 238406 ..... 238387

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 235028 .CTT.TA..TG..... 235047

```

```

product length = 2808
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 244960 ...C.....TTC.A... 244981

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 247767 .TT.GT.....A..... 247748

product length = 1886
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 210851 A.G...TA..... 210832

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 208966 CT.T.T....T.....T 208985

product length = 2067
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 155891 ..A..ATATT.....G. 155912

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 157957 CAT..T.....T..... 157938

product length = 1773
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 155891 ..A..ATATT.....G. 155912

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 157663 CA.T.T.....A..... 157644

product length = 1738
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 163950 CC.T.T.....T... 163931

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 162213 GC.GT.T...T.T..... 162232

product length = 2585
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 147691 CT..TC.....A..T... 147672

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 145107 AAA..GA...T..... 145126

product length = 2076
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 155891 ..A..ATATT.....G. 155912

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 157966 .AGA.T.....A..T... 157947

product length = 78
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 14436 CTA..T....T.....C 14417

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 14359 CTT.TT....T.....G 14378

product length = 3671
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 156160 GCT.GG...G.....G 156141

Reverse primer 1 TGCCAACTTCATCCTCATCA 20

```

```

Template          152490  CAT.TT....T.....  152509

product length = 60
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          147691  CT..TC.....A..T...  147672

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          147632  CC.TTC....T.....T  147651

product length = 270
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          155891  ..A..ATATT.....G.  155912

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          156160  GCT.GG...G.....G  156141

product length = 3500
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          156160  GCT.GG...G.....G  156141

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          152661  CTT.TT....C.....T  152680

product length = 3488
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          156160  GCT.GG...G.....G  156141

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          152673  CCT..T....CGA.....  152692

>KU216744.2 White spot syndrome virus strain MEX2008

product length = 141
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          368    .....  389

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          508    .....  489

product length = 2817
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          7248    ...C.....TTC.A...  7269

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          10064   .TT.GT.....A.....  10045

product length = 1887
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          272576   A.G...TA.....  272557

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          270690   CT.T.T....T.....T  270709

product length = 500
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          252428   ..AG.GG..G.....C  252409

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          251929   CTG..T..A.....  251948

product length = 2067
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          218983   ..A..ATATT.....G.  219004

```

| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 221049 | CAT..T.....T..... | 221030 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 218983 | ..A..ATATT.....G. | 219004 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 220755 | CA.T.T.....A..... | 220736 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 227050 | CC.T.T.....T... | 227031 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 225305 | GC.GT.T...T.T..... | 225324 |
| product length = 2585 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 210768 | CT..TC.....A..T... | 210749 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 208184 | AAA..GA...T..... | 208203 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 218983 | ..A..ATATT.....G. | 219004 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 221058 | .AGA.T.....A..T... | 221039 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 65089 | CTA..T....T.....C | 65070 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 65012 | CTT.TT....T.....G | 65031 |
| product length = 3677 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 219252 | GCT.GG...G.....G | 219233 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 215576 | CAT.TT....T..... | 215595 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 210768 | CT..TC.....A..T... | 210749 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 210709 | CC.TTC....T.....T | 210728 |
| product length = 270 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 218983 | ..A..ATATT.....G. | 219004 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 219252 | GCT.GG...G.....G | 219233 |
| product length = 3506 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |


```

Template          219252  GCT.GG...G.....G  219233

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          215747  CTT.TT....C.....T  215766

product length = 3494
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          219252  GCT.GG...G.....G  219233

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          215759  CCT..T....CGA.....  215778

product length = 3631
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          70457  GAA..T.A..T.....C  70438

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          66827  .C.TCTA..TG.....  66846

product length = 558
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          37508  CCT.....GTA..C..  37489

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          36951  ATT.....AA.AT.....  36970

>MG432482.1 Shrimp white spot syndrome virus isolate LG

product length = 141
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          207690  .....  207711

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          207830  .....  207811

product length = 3374
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          207830  .....  207811

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          204457  .CTT.TA..TG.....  204476

product length = 2801
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          214516  ...C.....TTC.A...  214537

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          217316  .TT.GT.....A.....  217297

product length = 1886
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          182717  A.G...TA.....  182698

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          180832  CT.T.T....T.....T  180851

product length = 499
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          162571  ..AG.GG..G.....C  162552

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          162073  CTG..T..A.....  162092

```

```

product length = 2067
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 129525 ..A..ATATT.....G. 129546

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 131591 CAT..T.....T..... 131572

product length = 1773
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 129525 ..A..ATATT.....G. 129546

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 131297 CA.T.T.....A..... 131278

product length = 1746
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 137588 CC.T.T.....T... 137569

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 135843 GC.GT.T...T.T..... 135862

product length = 2587
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 121303 CT..TC.....A..T... 121284

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 118717 AAA..GA...T..... 118736

product length = 2076
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 129525 ..A..ATATT.....G. 129546

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 131600 .AGA.T.....A..T... 131581

product length = 78
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 9097 CTA..T....T.....C 9078

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 9020 CTT.TT....T.....G 9039

product length = 3677
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 129794 GCT.GG...G.....G 129775

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 126118 CAT.TT....T..... 126137

product length = 60
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 121303 CT..TC.....A..T... 121284

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 121244 CC.TTC....T.....T 121263

product length = 270
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 129525 ..A..ATATT.....G. 129546

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 129794 GCT.GG...G.....G 129775

```

```

product length = 3506
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 129794 GCT.GG...G.....G 129775

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 126289 CTT.TT....C.....T 126308

product length = 3494
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 129794 GCT.GG...G.....G 129775

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 126301 CCT..T....CGA..... 126320

product length = 3632
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 14466 GAA..T.A..T.....C 14447

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 10835 .C.TCTA..TG..... 10854

product length = 1391
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 238870 CCT.....GTA..C.. 238851

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 237480 CTT.CT.....T.....T 237499

product length = 558
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 238870 CCT.....GTA..C.. 238851

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 238313 ATT.....AA.AT..... 238332

>MG432481.1 Shrimp white spot syndrome virus isolate LC1

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 228107 ..... 228128

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 228247 ..... 228228

product length = 3380
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 228247 ..... 228228

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 224868 .CTT.TA..TG..... 224887

product length = 2818
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 234967 ...C.....TTC.A... 234988

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 237784 .TT.GT.....A..... 237765

product length = 1886
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 202878 A.G...TA..... 202859

Reverse primer 1 TGCCAACTTCATCCTCATCA 20

```

| | | | |
|-----------------------|--------|------------------------|--------|
| Template | 200993 | CT.T.T....T.....T | 201012 |
| product length = 500 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 182770 | ..AG.GG..G.....C | 182751 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 182271 | CTG..T..A..... | 182290 |
| product length = 2070 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 149689 | ..A..ATATT.....G. | 149710 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 151758 | CAT..T.....T..... | 151739 |
| product length = 1776 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 149689 | ..A..ATATT.....G. | 149710 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 151464 | CA.T.T.....A..... | 151445 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 157753 | CC.T.T.....T... | 157734 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 156008 | GC.GT.T...T.T..... | 156027 |
| product length = 2584 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 141524 | CT..TC.....A..T... | 141505 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 138941 | AAA..GA...T..... | 138960 |
| product length = 2079 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 149689 | ..A..ATATT.....G. | 149710 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 151767 | .AGA.T.....A..T... | 151748 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 9084 | CTA..T....T.....C | 9065 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 9007 | CTT.TT....T.....G | 9026 |
| product length = 3668 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 149958 | GCT.GG...G.....G | 149939 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 146291 | CAT.TT....T..... | 146310 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 141524 | CT..TC.....A..T... | 141505 |

```

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      141465 CC.TTC....T.....T 141484

product length = 270
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      149689 ..A..ATATT.....G. 149710

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      149958 GCT.GG...G.....G 149939

product length = 3497
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      149958 GCT.GG...G.....G 149939

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      146462 CTT.TT....C.....T 146481

product length = 3485
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      149958 GCT.GG...G.....G 149939

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      146474 CCT..T....CGA..... 146493

product length = 3630
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      14451 GAA..T.A..T.....C 14432

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      10822 .C.TCTA..TG..... 10841

product length = 1391
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      259427 CCT.....GTA..C.. 259408

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      258037 CTT.CT.....T.....T 258056

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      259427 CCT.....GTA..C.. 259408

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      258870 ATT.....AA.AT..... 258889

>MG432480.1 Shrimp white spot syndrome virus isolate LC10

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      220119 ..... 220140

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      220259 ..... 220240

product length = 3380
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      220259 ..... 220240

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      216880 .CTT.TA..TG..... 216899

product length = 2818
Forward primer 1      AGGTGTGGAACAACACATCAAG 22

```

```

Template      226992 ...C.....TTC.A... 227013

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      229809 ..TT.GT.....A..... 229790

product length = 1886
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      194819 A.G...TA..... 194800

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      192934 CT.T.T....T.....T 192953

product length = 500
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      174707 ..AG.GG..G.....C 174688

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      174208 CTG..T..A..... 174227

product length = 2070
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      141458 ..A..ATATT.....G. 141479

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      143527 CAT..T.....T..... 143508

product length = 1776
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      141458 ..A..ATATT.....G. 141479

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      143233 CA.T.T.....A..... 143214

product length = 1743
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      149520 CC.T.T.....T... 149501

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      147778 GC.GT.T...T.T..... 147797

product length = 2583
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      133215 CT..TC.....A..T... 133196

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      130633 AAA..GA...T..... 130652

product length = 2079
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      141458 ..A..ATATT.....G. 141479

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      143536 .AGA.T.....A..T... 143517

product length = 78
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      9070 CTA..T....T.....C 9051

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      8993 CTT.TT....T.....G 9012

product length = 3674

```

```

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      141727 GCT.GG...G.....G 141708

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      138054 CAT.TT....T..... 138073

product length = 60
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      133215 CT..TC.....A..T... 133196

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      133156 CC.TTC....T.....T 133175

product length = 270
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      141458 ..A..ATATT.....G. 141479

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      141727 GCT.GG...G.....G 141708

product length = 3503
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      141727 GCT.GG...G.....G 141708

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      138225 CTT.TT....C.....T 138244

product length = 3491
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      141727 GCT.GG...G.....G 141708

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      138237 CCT..T....CGA..... 138256

product length = 3629
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      14436 GAA..T.A..T.....C 14417

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      10808 .C.TCTA..TG..... 10827

>MG432479.1 Shrimp white spot syndrome virus isolate JP

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      228428 ..... 228449

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      228568 ..... 228549

product length = 3342
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      228568 ..... 228549

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      225227 .CTT.TA..TG..... 225246

product length = 2816
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      235312 ...C.....TTC.A... 235333

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      238127 .TT.GT.....A..... 238108

```

```

product length = 1887
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      200425  A.G...TA..... 200406

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      198539  CT.T.T....T.....T 198558

product length = 501
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      180300  ..AG.GG..G.....C 180281

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      179800  CTG..T..A..... 179819

product length = 2067
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      147267  ..A..ATATT.....G. 147288

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      149333  CAT..T.....T..... 149314

product length = 1773
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      147267  ..A..ATATT.....G. 147288

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      149039  CA.T.T.....A..... 149020

product length = 1740
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      155325  CC.T.T.....T... 155306

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      153586  GC.GT.T...T.T..... 153605

product length = 2076
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      147267  ..A..ATATT.....G. 147288

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      149342  .AGA.T.....A..T... 149323

product length = 78
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      9075  CTA..T....T.....C 9056

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      8998  CTT.TT....T.....G 9017

product length = 3678
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      147536  GCT.GG...G.....G 147517

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      143859  CAT.TT....T..... 143878

product length = 270
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      147267  ..A..ATATT.....G. 147288

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      147536  GCT.GG...G.....G 147517

```



```

product length = 3507
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 147536 GCT.GG...G.....G 147517

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 144030 CTT.TT....C.....T 144049

product length = 3495
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 147536 GCT.GG...G.....G 147517

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 144042 CCT..T....CGA..... 144061

product length = 3628
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 14445 GAA..T.A..T.....C 14426

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 10818 .C.TCTA..TG..... 10837

product length = 558
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 265062 CCT.....GTA..C.. 265043

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 264505 ATT.....AA.AT..... 264524

>MG432477.1 Shrimp white spot syndrome virus isolate DVI

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 240678 ..... 240699

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 240818 ..... 240799

product length = 3378
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 240818 ..... 240799

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 237441 .CTT.TA..TG..... 237460

product length = 2816
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 247555 ...C.....TTC.A... 247576

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 250370 .TT.GT.....A..... 250351

product length = 1886
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 212571 A.G...TA..... 212552

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 210686 CT.T.T....T.....T 210705

product length = 499
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 192414 ..AG.GG..G.....C 192395

```

| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 191916 | CTG..T..A..... | 191935 |
| product length = 2067 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 159150 | ..A..ATATT.....G. | 159171 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161216 | CAT..T.....T..... | 161197 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 159150 | ..A..ATATT.....G. | 159171 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 160922 | CA.T.T.....A..... | 160903 |
| product length = 1740 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 167207 | CC.T.T.....T... | 167188 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 165468 | GC.GT.T...T.T..... | 165487 |
| product length = 2585 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 150946 | CT..TC.....A..T... | 150927 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 148362 | AAA..GA...T..... | 148381 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 159150 | ..A..ATATT.....G. | 159171 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161225 | .AGA.T.....A..T... | 161206 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 9089 | CTA..T....T.....C | 9070 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 9012 | CTT.TT....T.....G | 9031 |
| product length = 3675 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 159419 | GCT.GG...G.....G | 159400 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 155745 | CAT.TT....T..... | 155764 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 150946 | CT..TC.....A..T... | 150927 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 150887 | CC.TTC....T.....T | 150906 |
| product length = 270 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 159150 | ..A..ATATT.....G. | 159171 |

```

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      159419 GCT.GG...G.....G 159400

product length = 3504
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      159419 GCT.GG...G.....G 159400

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      155916 CTT.TT....C.....T 155935

product length = 3492
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      159419 GCT.GG...G.....G 159400

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      155928 CCT..T....CGA..... 155947

product length = 3630
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      14445  GAA..T.A..T.....C 14426

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      10816  .C.TCTA..TG..... 10835

product length = 1391
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      272023 CCT.....GTA..C.. 272004

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      270633 CTT.CT.....T....T 270652

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      272023 CCT.....GTA..C.. 272004

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      271466 ATT.....AA.AT..... 271485

>MG432476.1 Shrimp white spot syndrome virus isolate ACF4

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      227227 ..... 227248

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      227367 ..... 227348

product length = 3379
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      227367 ..... 227348

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      223989 .CTT.TA..TG..... 224008

product length = 2808
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      234100 ...C.....TTC.A... 234121

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      236907 .TT.GT.....A..... 236888

product length = 1887

```

| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 202226 | A.G...TA..... | 202207 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 200340 | CT.T.T....T.....T | 200359 |
| product length = 500 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 182072 | ..AG.GG..G.....C | 182053 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 181573 | CTG..T..A..... | 181592 |
| product length = 2070 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 149109 | ..A..ATATT.....G. | 149130 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 151178 | CAT..T.....T..... | 151159 |
| product length = 1776 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 149109 | ..A..ATATT.....G. | 149130 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 150884 | CA.T.T.....A..... | 150865 |
| product length = 1745 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 157165 | CC.T.T.....T... | 157146 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 155421 | GC.GT.T...T.T..... | 155440 |
| product length = 2585 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 140879 | CT..TC.....A..T... | 140860 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 138295 | AAA..GA...T..... | 138314 |
| product length = 2079 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 149109 | ..A..ATATT.....G. | 149130 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 151187 | ..AGA.T.....A..T... | 151168 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 9086 | CTA..T....T.....C | 9067 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 9009 | CTT.TT....T.....G | 9028 |
| product length = 3677 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 149378 | GCT.GG...G.....G | 149359 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 145702 | CAT.TT....T..... | 145721 |

```

product length = 60
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      140879  CT..TC.....A..T... 140860

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      140820  CC.TTC....T.....T 140839

product length = 270
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      149109  ..A..ATATT.....G. 149130

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      149378  GCT.GG...G.....G 149359

product length = 3506
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      149378  GCT.GG...G.....G 149359

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      145873  CTT.TT....C.....T 145892

product length = 3494
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      149378  GCT.GG...G.....G 149359

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      145885  CCT..T....CGA..... 145904

product length = 3631
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      14454  GAA..T.A..T.....C 14435

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      10824  .C.TCTA..TG..... 10843

product length = 1391
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      258480  CCT.....GTA..C.. 258461

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      257090  CTT.CT.....T.....T 257109

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      258480  CCT.....GTA..C.. 258461

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      257923  ATT.....AA.AT..... 257942

>MG432475.1 Shrimp white spot syndrome virus isolate ACF2

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      240077  ..... 240098

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      240217  ..... 240198

product length = 3378
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      240217  ..... 240198

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      236840  .CTT.TA..TG..... 236859

```

```

product length = 2823
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 246933 ...C.....TTC.A... 246954

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 249755 .TT.GT.....A..... 249736

product length = 1886
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 212236 A.G...TA..... 212217

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 210351 CT.T.T....T.....T 210370

product length = 500
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 192134 ..AG.GG..G.....C 192115

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 191635 CTG..T..A..... 191654

product length = 2067
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 159009 ..A..ATATT.....G. 159030

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 161075 CAT..T.....T..... 161056

product length = 1773
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 159009 ..A..ATATT.....G. 159030

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 160781 CA.T.T.....A..... 160762

product length = 1740
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 167065 CC.T.T.....T... 167046

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 165326 GC.GT.T...T.T..... 165345

product length = 2585
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 150834 CT..TC.....A..T... 150815

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 148250 AAA..GA...T..... 148269

product length = 2076
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 159009 ..A..ATATT.....G. 159030

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 161084 .AGA.T.....A..T... 161065

product length = 78
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 9084 CTA..T....T.....C 9065

Reverse primer 1 TGCCAACTTCATCCTCATCA 20

```

```

Template          9007  CTT.TT....T.....G  9026

product length = 3671
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          159278 GCT.GG...G.....G  159259

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          155608 CAT.TT....T.....  155627

product length = 60
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          150834 CT..TC.....A..T...  150815

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          150775 CC.TTC....T.....T  150794

product length = 270
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          159009 ..A..ATATT.....G.  159030

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          159278 GCT.GG...G.....G  159259

product length = 3500
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          159278 GCT.GG...G.....G  159259

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          155779 CTT.TT....C.....T  155798

product length = 3488
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          159278 GCT.GG...G.....G  159259

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          155791 CCT..T....CGA.....  155810

product length = 3629
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          14450  GAA..T.A..T.....C  14431

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          10822  .C.TCTA..TG.....  10841

product length = 1391
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          271406 CCT.....GTA..C..  271387

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          270016 CTT.CT.....T.....T  270035

product length = 558
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          271406 CCT.....GTA..C..  271387

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          270849 ATT.....AA.AT.....  270868

>MG432474.1 Shrimp white spot syndrome virus isolate AC1

product length = 141
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          222467 .....  222488

```

| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 222607 | ..... | 222588 |
| product length = 3380 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 222607 | ..... | 222588 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 219228 | .CTT.TA..TG..... | 219247 |
| product length = 2817 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 229343 | ...C.....TTC.A... | 229364 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 232159 | .TT.GT.....A..... | 232140 |
| product length = 1886 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 194328 | A.G...TA..... | 194309 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 192443 | CT.T.T....T.....T | 192462 |
| product length = 499 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 174186 | ..AG.GG..G.....C | 174167 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 173688 | CTG..T..A..... | 173707 |
| product length = 2067 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 141008 | ..A..ATATT.....G. | 141029 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 143074 | CAT..T.....T..... | 143055 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 141008 | ..A..ATATT.....G. | 141029 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 142780 | CA.T.T.....A..... | 142761 |
| product length = 1740 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 149064 | CC.T.T.....T... | 149045 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 147325 | GC.GT.T...T.T..... | 147344 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 141008 | ..A..ATATT.....G. | 141029 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 143083 | .AGA.T.....A..T... | 143064 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |


```

Template          9086  CTA..T....T.....C  9067

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          9009  CTT.TT....T.....G  9028


product length = 3117
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          141277 GCT.GG...G.....G  141258

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          138161 CAT.TT....T.....  138180


product length = 270
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          141008 ..A..ATATT.....G.  141029

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          141277 GCT.GG...G.....G  141258


product length = 3644
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          258917 CC.TTT....C.....T  258898

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          255274 .C.ACG.A.TC.....  255293


product length = 3631
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          14453  GAA..T.A..T.....C  14434

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          10823  .C.TCTA..TG.....  10842


product length = 1391
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          253820 CCT.....GTA..C..  253801

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          252430 CTT.CT.....T.....T  252449


product length = 558
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          253820 CCT.....GTA..C..  253801

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          253263 ATT.....AA.AT.....  253282

>MH090824.1 White spot syndrome virus isolate WSSV-EC-15098

product length = 141
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          243040 .....  243061

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          243180 .....  243161


product length = 3380
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          243180 .....  243161

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          239801 .CTT.TA..TG.....  239820

```

```

product length = 2817
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      249917  ...C.....TTC.A...  249938

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      252733  .TT.GT.....A.....  252714

product length = 1887
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      215162  A.G...TA.....  215143

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      213276  CT.T.T....T.....T  213295

product length = 500
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      195020  ..AG.GG..G.....C  195001

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      194521  CTG..T..A.....  194540

product length = 2067
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      162193  ..A..ATATT.....G.  162214

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      164259  CAT..T.....T.....  164240

product length = 1773
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      162193  ..A..ATATT.....G.  162214

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      163965  CA.T.T.....A.....  163946

product length = 1746
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      170260  CC.T.T.....T...  170241

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      168515  GC.GT.T...T.T.....  168534

product length = 2588
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      154494  CT..TC.....A..T...  154475

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      151907  AAA..GA...T.....  151926

product length = 2076
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      162193  ..A..ATATT.....G.  162214

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      164268  .AGA.T.....A..T...  164249

product length = 78
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      13428  CTA..T....T.....C  13409

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      13351  CTT.TT....T.....G  13370

```

```

product length = 3674
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 162462 GCT.GG...G.....G 162443

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 158789 CAT.TT....T..... 158808

product length = 60
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 154494 CT..TC.....A..T... 154475

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 154435 CC.TTC....T.....T 154454

product length = 270
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 162193 ..A..ATATT.....G. 162214

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 162462 GCT.GG...G.....G 162443

product length = 3503
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 162462 GCT.GG...G.....G 162443

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 158960 CTT.TT....C.....T 158979

product length = 3491
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 162462 GCT.GG...G.....G 162443

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 158972 CCT..T....CGA..... 158991

product length = 3631
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 18796 GAA..T.A..T.....C 18777

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 15166 .C.TCTA..TG..... 15185

product length = 1391
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 275113 CCT.....GTA..C.. 275094

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 273723 CTT.CT.....T.....T 273742

product length = 558
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 275113 CCT.....GTA..C.. 275094

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 274556 ATT.....AA.AT..... 274575

>MG702567.1 White spot syndrome virus isolate IN_AP4RU

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 58879 ..... 58900

Reverse primer 1 TGCCAACTTCATCCTCATCA 20

```

| | | | |
|-----------------------|--------|----------------------|--------|
| Template | 59019 | ..... | 59000 |
| product length = 3328 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 59019 | ..... | 59000 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 55692 | .CTT.TA..TG..... | 55711 |
| product length = 1872 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 31323 | A.G...TA..... | 31304 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 29452 | CT.T.T....T.....T | 29471 |
| product length = 497 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 11343 | ..AG.GG..G.....C | 11324 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 10847 | CTG..T..A..... | 10866 |
| product length = 2546 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 252576 | .CT.CT.....A..T... | 252557 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 250031 | AAA..GA...T..... | 250050 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 116437 | CTA..T....T.....C | 116418 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 116360 | CTT.TT....T.....G | 116379 |
| product length = 3647 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 261217 | GCT.GG...G.....G | 261198 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 257571 | CAT.TT....T..... | 257590 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 252576 | .CT.CT.....A..T... | 252557 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 252517 | CC.TTC....T.....T | 252536 |
| product length = 62 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 250092 | CTT..T.C..C.....C | 250073 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 250031 | AAA..GA...T..... | 250050 |
| product length = 3476 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 261217 | GCT.GG...G.....G | 261198 |

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 257742 CTT.TT....C.....T 257761

product length = 3464
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 261217 GCT.GG...G.....G 261198

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 257754 CCT..T....CGA..... 257773

product length = 1725
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 250092 CTT..T.C..C.....C 250073

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 248368 CCAG.T.....A..T... 248387

product length = 1494
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 89878 CCT.....GTA..C.. 89859

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 88385 CTT.CT.....T.....T 88404

product length = 554
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 89878 CCT.....GTA..C.. 89859

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 89325 ATT.....AA.AT..... 89344

>MF784752.1 White spot syndrome virus isolate FSL39, partial genome

product length = 141
 Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 368 389

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 508 489

product length = 2817
 Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 7242 ...C.....TTC.A... 7263

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 10058 .TT.GT.....A..... 10039

product length = 1887
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 265143 A.G...TA..... 265124

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 263257 CT.T.T....T.....T 263276

product length = 500
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 244985 ..AG.GG..G.....C 244966

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 244486 CTG..T..A..... 244505

product length = 2067
 Forward primer 1 AGGTGTGGAACAACACATCAAG 22

```

Template      211378  ..A..ATATT.....G.  211399

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      213444  CAT..T.....T.....  213425

product length = 1773
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      211378  ..A..ATATT.....G.  211399

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      213150  CA.T.T.....A.....  213131

product length = 1746
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      219448  CC.T.T.....T...  219429

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      217703  GC.GT.T...T.T.....  217722

product length = 2588
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      203323  CT..TC.....A..T...  203304

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      200736  AAA..GA...T.....  200755

product length = 2076
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      211378  ..A..ATATT.....G.  211399

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      213453  .AGA.T.....A..T...  213434

product length = 78
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      59344  CTA..T....T.....C  59325

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      59267  CTT.TT....T.....G  59286

product length = 3674
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      211647  GCT.GG...G.....G  211628

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      207974  CAT.TT....T.....  207993

product length = 60
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      203323  CT..TC.....A..T...  203304

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      203264  CC.TTC....T.....T  203283

product length = 270
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      211378  ..A..ATATT.....G.  211399

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      211647  GCT.GG...G.....G  211628

product length = 3503

```

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 211647 | GCT.GG...G.....G | 211628 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 208145 | CTT.TT....C.....T | 208164 |

product length = 3491

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 211647 | GCT.GG...G.....G | 211628 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 208157 | CCT..T....CGA..... | 208176 |

product length = 3631

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 64712 | GAA..T.A..T.....C | 64693 |

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 61082 | .C.TCTA..TG..... | 61101 |

product length = 1047

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 31947 | CCT.....GTA..C.. | 31928 |

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 30901 | CTT.CT.....T.....T | 30920 |

product length = 558

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 31947 | CCT.....GTA..C.. | 31928 |

| | | | |
|----------------|-------|----------------------|-------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 31390 | ATT.....AA.AT..... | 31409 |

>MF768985.1 White spot syndrome virus isolate WSSV-AU

product length = 141

| | | | |
|----------------|-----|------------------------|-----|
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 368 | ..... | 389 |

| | | | |
|----------------|-----|----------------------|-----|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 508 | ..... | 489 |

product length = 1887

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 258800 | A.G...TA..... | 258781 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 256914 | CT.T.T....T.....T | 256933 |

product length = 2067

| | | | |
|----------------|--------|------------------------|--------|
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 207299 | ..A..ATATT.....G. | 207320 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 209365 | CAT..T.....T..... | 209346 |

product length = 1773

| | | | |
|----------------|--------|------------------------|--------|
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 207299 | ..A..ATATT.....G. | 207320 |

| | | | |
|----------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 209071 | CA.T.T.....A..... | 209052 |

```

product length = 1746
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 215366 CC.T.T.....T... 215347

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 213621 GC.GT.T...T.T..... 213640

product length = 2594
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 199083 CT..TC.....A..T... 199064

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 196490 AAA..GA...T..... 196509

product length = 2076
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 207299 ..A..ATATT.....G. 207320

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 209374 .AGA.T.....A..T... 209355

product length = 78
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 61571 CTA..T....T.....C 61552

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 61494 CTT.TT....T.....G 61513

product length = 3674
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 207568 GCT.GG...G.....G 207549

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 203895 CAT.TT....T..... 203914

product length = 60
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 199083 CT..TC.....A..T... 199064

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 199024 CC.TTC....T.....T 199043

product length = 270
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 207299 ..A..ATATT.....G. 207320

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 207568 GCT.GG...G.....G 207549

product length = 3503
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 207568 GCT.GG...G.....G 207549

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 204066 CTT.TT....C.....T 204085

product length = 3491
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 207568 GCT.GG...G.....G 207549

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 204078 CCT..T....CGA..... 204097

```



```

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      34574 CCT.....GTA..C..  34555

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      34017 ATT.....AA.AT.....  34036

>MF489082.1 White spot syndrome virus isolate BAN_SH_AL-2_2017 envelope protein (VP28) gene,
partial cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      320 .....  341

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      460 .....  441

>MF489081.1 White spot syndrome virus isolate BAN_SH_DE-2_2017 envelope protein (VP28) gene,
partial cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      323 .....  344

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      463 .....  444

>MF489080.1 White spot syndrome virus isolate BAN_SH_KU-2_2017 envelope protein (VP28) gene,
partial cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      167 .....  188

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      307 .....  288

>MF489079.1 White spot syndrome virus isolate BAN_SH_SN-1_2017 envelope protein (VP28) gene,
partial cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      317 .....  338

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      457 .....  438

>MF489078.1 White spot syndrome virus isolate BAN_SH_SU-2_2017 envelope protein (VP28) gene,
partial cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      317 .....  338

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      457 .....  438

>MF489077.1 White spot syndrome virus isolate BAN_SH_AL-2_2015 envelope protein (VP28) gene,
partial cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      320 .....  341

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      460 .....  441

>KX686117.1 White spot syndrome virus strain PC

```

```

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      86878 ..... 86899

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      87018 ..... 86999

product length = 3380
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      87018 ..... 86999

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      83639 .CTT.TA..TG..... 83658

product length = 2817
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      93752 ...C.....TTC.A... 93773

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      96568 .TT.GT.....A..... 96549

product length = 1887
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      58361 A.G...TA..... 58342

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      56475 CT.T.T....T.....T 56494

product length = 500
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      38231 ..AG.GG..G.....C 38212

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      37732 CTG..T..A..... 37751

product length = 2064
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      4410 ..A..ATATT.....G. 4431

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      6473 CAT..T.....T..... 6454

product length = 1770
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      4410 ..A..ATATT.....G. 4431

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      6179 CA.T.T.....A..... 6160

product length = 1746
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      12474 CC.T.T.....T... 12455

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      10729 GC.GT.T...T.T..... 10748

product length = 2588
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      296396 CT..TC.....A..T... 296377

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      293809 AAA..GA...T..... 293828

```

```

product length = 2073
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      4410  ..A..ATATT.....G.  4431

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      6482  .AGA.T.....A..T...  6463

product length = 78
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      151129 CTA..T....T.....C  151110

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      151052 CTT.TT....T.....G  151071

product length = 3675
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      4679  GCT.GG...G.....G  4660

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      1005  CAT.TT....T.....  1024

product length = 60
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      296396 CT..TC.....A..T...  296377

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      296337 CC.TTC....T.....T  296356

product length = 270
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      4410  ..A..ATATT.....G.  4431

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      4679  GCT.GG...G.....G  4660

product length = 3504
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      4679  GCT.GG...G.....G  4660

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      1176  CTT.TT....C.....T  1195

product length = 3492
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      4679  GCT.GG...G.....G  4660

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      1188  CCT..T....CGA.....  1207

product length = 3630
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      156496 GAA..T.A..T.....C  156477

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      152867 .C.TCTA..TG.....  152886

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      123557 CCT.....GTA..C..  123538

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      123000 ATT.....AA.AT.....  123019

```

```

>KY827813.1 White spot syndrome virus strain CN04

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 236127 ..... 236148

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 236267 ..... 236248

product length = 3379
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 236267 ..... 236248

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 232889 .CTT.TA..TG..... 232908

product length = 2817
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 243004 ...C.....TTC.A... 243025

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 245820 .TT.GT.....A..... 245801

product length = 1887
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 208914 A.G...TA..... 208895

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 207028 CT.T.T....T.....T 207047

product length = 500
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 188760 ..AG.GG..G.....C 188741

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 188261 CTG..T..A..... 188280

product length = 2067
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 157581 ..A..ATATT.....G. 157602

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 159647 CAT..T.....T..... 159628

product length = 1773
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 157581 ..A..ATATT.....G. 157602

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 159353 CA.T.T.....A..... 159334

product length = 1746
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 165648 CC.T.T.....T... 165629

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 163903 GC.GT.T...T.T..... 163922

product length = 2582
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 149881 CT..TC.....A..T... 149862

```

| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 147300 | AAA..GA...T..... | 147319 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 157581 | ..A..ATATT.....G. | 157602 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 159656 | .AGA.T.....A..T... | 159637 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 12087 | CTA..T....T.....C | 12068 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 12010 | CTT.TT....T.....G | 12029 |
| product length = 3674 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 157850 | GCT.GG...G.....G | 157831 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 154177 | CAT.TT....T..... | 154196 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 149881 | CT..TC.....A..T... | 149862 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 149822 | CC.TTC....T.....T | 149841 |
| product length = 270 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 157581 | ..A..ATATT.....G. | 157602 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 157850 | GCT.GG...G.....G | 157831 |
| product length = 3503 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 157850 | GCT.GG...G.....G | 157831 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 154348 | CTT.TT....C.....T | 154367 |
| product length = 3491 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 157850 | GCT.GG...G.....G | 157831 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 154360 | CCT..T....CGA..... | 154379 |
| product length = 1507 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 267171 | CCT.....GTA..C.. | 267152 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 265665 | CTT.CT.....T.....T | 265684 |
| product length = 558 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 267171 | CCT.....GTA..C.. | 267152 |

```

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       266614 ATT.....AA.AT..... 266633

>KT963945.1 White spot syndrome virus clone 29KR VP28 gene, partial cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       307 ..... 328

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       447 ..... 428

>KT963943.1 White spot syndrome virus clone 26KR VP28 gene, complete cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       368 ..... 389

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       508 ..... 489

>KT963941.1 White spot syndrome virus clone 21KR VP28 gene, partial cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       309 ..... 330

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       449 ..... 430

>KT963939.1 White spot syndrome virus clone 19KR VP28 gene, complete cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       368 ..... 389

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       508 ..... 489

>KT963936.1 White spot syndrome virus clone 17KRISH VP28 gene, partial cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       309 ..... 330

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       449 ..... 430

>KT963935.1 White spot syndrome virus clone 15KRISH VP28 gene, partial cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       368 ..... 389

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       508 ..... 489

>KT963934.1 White spot syndrome virus clone 6KRISH VP28 gene, partial cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       310 ..... 331

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       450 ..... 431

>KT963933.1 White spot syndrome virus clone 2KRISH VP28 gene, complete cds

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22

```

```

Template          368 ..... 389

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          508 ..... 489

>NC_003225.3 White spot syndrome virus strain CN01, complete genome

product length = 141
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          247207 ..... 247228

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          247347 ..... 247328

product length = 3380
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          247347 ..... 247328

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          243968  .CTT.TA..TG..... 243987

product length = 2817
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          254084  ...C.....TTC.A... 254105

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          256900  .TT.GT.....A..... 256881

product length = 1887
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          219329  A.G...TA..... 219310

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          217443  CT.T.T....T.....T 217462

product length = 500
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          199187  ..AG.GG..G.....C 199168

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          198688  CTG..T..A..... 198707

product length = 2067
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          166360  ..A..ATATT.....G. 166381

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          168426  CAT..T.....T..... 168407

product length = 1773
Forward primer    1      AGGTGTGGAACAACACATCAAG  22
Template          166360  ..A..ATATT.....G. 166381

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          168132  CA.T.T.....A..... 168113

product length = 1746
Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          174427  CC.T.T.....T... 174408

Reverse primer    1      TGCCAACTTCATCCTCATCA  20
Template          172682  GC.GT.T...T.T..... 172701

```

```

product length = 2588
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 158148 CT..TC.....A..T... 158129

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 155561 AAA..GA...T..... 155580

product length = 2076
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 166360 ..A..ATATT.....G. 166381

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 168435 .AGA.T.....A..T... 168416

product length = 78
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 13680 CTA..T....T.....C 13661

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 13603 CTT.TT....T.....G 13622

product length = 3674
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 166629 GCT.GG...G.....G 166610

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 162956 CAT.TT....T..... 162975

product length = 60
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 158148 CT..TC.....A..T... 158129

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 158089 CC.TTC....T.....T 158108

product length = 2510
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 291895 .CAAT.....TT...G.. 291876

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 289386 .ATAG.....T.....G 289405

product length = 270
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 166360 ..A..ATATT.....G. 166381

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 166629 GCT.GG...G.....G 166610

product length = 3503
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 166629 GCT.GG...G.....G 166610

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 163127 CTT.TT....C.....T 163146

product length = 3491
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 166629 GCT.GG...G.....G 166610

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 163139 CCT..T....CGA..... 163158

```



```

product length = 3631
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 19048 GAA..T.A..T.....C 19029

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 15418 .C.TCTA..TG..... 15437

product length = 1127
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 291895 .CAAT.....TT...G.. 291876

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 290769 CTT..TA...T.....C 290788

product length = 558
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 295402 CCT.....GTA..C.. 295383

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 294845 ATT.....AA.AT..... 294864

>KT995472.1 White spot syndrome virus strain CN01

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 247207 ..... 247228

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 247347 ..... 247328

product length = 3380
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 247347 ..... 247328

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 243968 .CTT.TA..TG..... 243987

product length = 2817
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 254084 ...C.....TTC.A... 254105

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 256900 .TT.GT.....A..... 256881

product length = 1887
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 219329 A.G...TA..... 219310

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 217443 CT.T.T....T.....T 217462

product length = 500
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 199187 ..AG.GG..G.....C 199168

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 198688 CTG..T..A..... 198707

product length = 2067
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 166360 ..A..ATATT.....G. 166381

Reverse primer 1 TGCCAACTTCATCCTCATCA 20

```

| | | | |
|-----------------------|--------|------------------------|--------|
| Template | 168426 | CAT..T.....T..... | 168407 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 166360 | ..A..ATATT.....G. | 166381 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 168132 | CA.T.T.....A..... | 168113 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 174427 | CC.T.T.....T... | 174408 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 172682 | GC.GT.T...T.T..... | 172701 |
| product length = 2588 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 158148 | CT..TC.....A..T... | 158129 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 155561 | AAA..GA...T..... | 155580 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 166360 | ..A..ATATT.....G. | 166381 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 168435 | .AGA.T.....A..T... | 168416 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13680 | CTA..T....T.....C | 13661 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13603 | CTT.TT....T.....G | 13622 |
| product length = 3674 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 166629 | GCT.GG...G.....G | 166610 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 162956 | CAT.TT....T..... | 162975 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 158148 | CT..TC.....A..T... | 158129 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 158089 | CC.TTC....T.....T | 158108 |
| product length = 2510 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 291895 | .CAAT.....TT...G.. | 291876 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 289386 | .ATAG.....T.....G | 289405 |
| product length = 270 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 166360 | ..A..ATATT.....G. | 166381 |

```

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      166629 GCT.GG...G.....G 166610

product length = 3503
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      166629 GCT.GG...G.....G 166610

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      163127 CTT.TT....C.....T 163146

product length = 3491
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      166629 GCT.GG...G.....G 166610

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      163139 CCT..T....CGA..... 163158

product length = 3631
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      19048  GAA..T.A..T.....C 19029

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      15418  .C.TCTA..TG..... 15437

product length = 1127
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      291895 .CAAT.....TT...G.. 291876

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      290769 CTT..TA...T.....C 290788

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      295402 CCT.....GTA..C.. 295383

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      294845 ATT.....AA.AT..... 294864

>KT995471.1 White spot syndrome virus strain CN03

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      238883 ..... 238904

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      239023 ..... 239004

product length = 3380
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      239023 ..... 239004

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      235644 .CTT.TA..TG..... 235663

product length = 2817
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      245766 ...C.....TTC.A... 245787

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      248582 .TT.GT.....A..... 248563

product length = 1887
Reverse primer 1      TGCCAACTTCATCCTCATCA 20

```

| | | | |
|-----------------------|--------|----------------------|--------|
| Template | 211020 | A.G...TA..... | 211001 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 209134 | CT.T.T....T.....T | 209153 |
| product length = 500 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 190860 | ..AG.GG..G.....C | 190841 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 190361 | CTG..T..A..... | 190380 |
| product length = 2067 | | | |
| Forward primer | 1 | AGGTGTGGAACAACATCAAG | 22 |
| Template | 159678 | ..A..ATATT.....G. | 159699 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161744 | CAT..T.....T..... | 161725 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACATCAAG | 22 |
| Template | 159678 | ..A..ATATT.....G. | 159699 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161450 | CA.T.T.....A..... | 161431 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 167745 | CC.T.T.....T... | 167726 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 166000 | GC.GT.T...T.T..... | 166019 |
| product length = 2591 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 151719 | CT..TC.....A..T... | 151700 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 149129 | AAA..GA...T..... | 149148 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACATCAAG | 22 |
| Template | 159678 | ..A..ATATT.....G. | 159699 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 161753 | .AGA.T.....A..T... | 161734 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 13014 | CTA..T....T.....C | 12995 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 12937 | CTT.TT....T.....G | 12956 |
| product length = 3674 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 159947 | GCT.GG...G.....G | 159928 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 156274 | CAT.TT....T..... | 156293 |
| product length = 60 | | | |

```

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       151719 CT..TC.....A..T... 151700

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       151660 CC.TTC....T.....T 151679

product length = 270
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       159678 ..A..ATATT.....G. 159699

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       159947 GCT.GG...G.....G 159928

product length = 3503
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       159947 GCT.GG...G.....G 159928

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       156445 CTT.TT....C.....T 156464

product length = 3491
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       159947 GCT.GG...G.....G 159928

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       156457 CCT..T....CGA..... 156476

product length = 1507
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       270265 CCT.....GTA..C.. 270246

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       268759 CTT.CT.....T.....T 268778

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       270265 CCT.....GTA..C.. 270246

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       269708 ATT.....AA.AT..... 269727

>KT995470.1 White spot syndrome virus strain CN02

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       243119 ..... 243140

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       243259 ..... 243240

product length = 3383
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       243259 ..... 243240

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       239877 .CTT.TA..TG..... 239896

product length = 2817
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       249999 ...C.....TTC.A... 250020

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       252815 .TT.GT.....A..... 252796

```

```

product length = 1887
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      215212  A.G...TA..... 215193

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      213326  CT.T.T....T.....T 213345

product length = 500
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      195062  ..AG.GG..G.....C 195043

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      194563  CTG..T..A..... 194582

product length = 2067
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      162000  ..A..ATATT.....G. 162021

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      164066  CAT..T.....T..... 164047

product length = 1773
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      162000  ..A..ATATT.....G. 162021

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      163772  CA.T.T.....A..... 163753

product length = 1746
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      170063  CC.T.T.....T... 170044

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      168318  GC.GT.T...T.T..... 168337

product length = 2588
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      153790  CT..TC.....A..T... 153771

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      151203  AAA..GA...T..... 151222

product length = 2076
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      162000  ..A..ATATT.....G. 162021

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      164075  .AGA.T.....A..T... 164056

product length = 78
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      13271  CTA..T....T.....C 13252

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      13194  CTT.TT....T.....G 13213

product length = 3674
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      162269  GCT.GG...G.....G 162250

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      158596  CAT.TT....T..... 158615

```

```

product length = 60
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      153790 CT..TC.....A..T... 153771

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      153731 CC.TTC....T.....T 153750

```

```

product length = 270
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      162000 ..A..ATATT.....G. 162021

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      162269 GCT.GG...G.....G 162250

```

```

product length = 3503
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      162269 GCT.GG...G.....G 162250

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      158767 CTT.TT....C.....T 158786

```

```

product length = 3491
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      162269 GCT.GG...G.....G 162250

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      158779 CCT..T....CGA..... 158798

```

```

product length = 3631
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      18639 GAA..T.A..T.....C 18620

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      15009 .C.TCTA..TG..... 15028

```

```

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      280379 CCT.....GTA..C.. 280360

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      279822 ATT.....AA.AT..... 279841

```

>KT748521.1 White spot syndrome virus strain Mx12-1 ORF1 gene, complete cds; and ORF2 gene, partial cds

```

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      443 ..... 464

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      583 ..... 564

```

>KR083838.1 White spot syndrome virus isolate EG1 VP28 gene, complete cds

```

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template      368 ..... 389

Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template      508 ..... 489

```

>KF723558.1 White spot syndrome virus isolate Chabahar structural protein VP28 (VP28) gene, partial cds

```

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 366 ..... 387

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 506 ..... 487

>AB855742.1 Shrimp white spot syndrome virus gene for structural protein VP28, partial cds,
strain: IRI-KHZ/904

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 281 ..... 302

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 421 ..... 402

>JX515788.1 White spot syndrome virus strain K-LV1, complete genome

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 241269 ..... 241290

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 241409 ..... 241390

product length = 3380
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 241409 ..... 241390

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 238030 .CTT.TA..TG..... 238049

product length = 2817
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 248146 ...C.....TTC.A... 248167

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 250962 .TT.GT.....A..... 250943

product length = 1887
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 213712 A.G...TA..... 213693

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 211826 CT.T.T....T.....T 211845

product length = 500
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 193582 ..AG.GG..G.....C 193563

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 193083 CTG..T..A..... 193102

product length = 2067
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 160261 ..A..ATATT.....G. 160282

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 162327 CAT..T.....T..... 162308

product length = 1773
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 160261 ..A..ATATT.....G. 160282

```


| | | | |
|-----------------------|--------|------------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 162033 | CA.T.T.....A..... | 162014 |
| product length = 1746 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 168328 | CC.T.T.....T... | 168309 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 166583 | GC.GT.T...T.T..... | 166602 |
| product length = 2588 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 152086 | CT..TC.....A..T... | 152067 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 149499 | AAA..GA...T..... | 149518 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 160261 | ..A..ATATT.....G. | 160282 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 162336 | .AGA.T.....A..T... | 162317 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 9097 | CTA..T....T.....C | 9078 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 9020 | CTT.TT....T.....G | 9039 |
| product length = 3674 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 160530 | GCT.GG...G.....G | 160511 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 156857 | CAT.TT....T..... | 156876 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 152086 | CT..TC.....A..T... | 152067 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 152027 | CC.TTC....T.....T | 152046 |
| product length = 270 | | | |
| Forward primer | 1 | AGGTGTGGAACAACACATCAAG | 22 |
| Template | 160261 | ..A..ATATT.....G. | 160282 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 160530 | GCT.GG...G.....G | 160511 |
| product length = 3503 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 160530 | GCT.GG...G.....G | 160511 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 157028 | CTT.TT....C.....T | 157047 |
| product length = 3491 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 160530 | GCT.GG...G.....G | 160511 |

```
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       157040 CCT...T....CGA..... 157059
```

```
product length = 3631
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       14465  GAA..T.A..T.....C 14446
```

```
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       10835  .C.TCTA..TG..... 10854
```

```
product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       277543 CCT.....GTA...C.. 277524
```

```
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       276986 ATT.....AA.AT..... 277005
```

>JX444994.1 Shrimp white spot syndrome virus strain 05VN.VP28.HCM2.12 structural protein VP28 (WSV421) gene, complete cds

```
product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       368  ..... 389
```

```
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       508  ..... 489
```

>JX444993.1 Shrimp white spot syndrome virus strain 07VN.VP28.BD2.12 structural protein VP28 (WSV421) gene, complete cds

```
product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       368  ..... 389
```

```
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       508  ..... 489
```

>HQ130032.1 Shrimp white spot syndrome virus VP28 envelope protein gene, partial cds

```
product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       281  ..... 302
```

```
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       421  ..... 402
```

>HM484387.1 Shrimp white spot syndrome virus isolate Kadalur NM1 VP28 gene, complete cds

```
product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       368  ..... 389
```

```
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       508  ..... 489
```

>HM484379.1 Shrimp white spot syndrome virus isolate Chidambaram M1 VP28 gene, complete cds

```
product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG 22
Template       359  ..... 380
```

```
Reverse primer 1      TGCCAACTTCATCCTCATCA 20
Template       499  ..... 480
```

>GU734034.1 Shrimp white spot syndrome virus isolate SDDL/09 envelope protein VP28 gene, complete cds

```
product length = 141
```

```

Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 368 ..... 389

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 508 ..... 489

>FJ756454.1 Shrimp white spot syndrome virus strain WSSV-Mx-G-2004 major structural protein
VP28 (VP28) gene, partial cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 506 ..... 527

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 646 ..... 627

>FJ756453.1 Shrimp white spot syndrome virus strain WSSV-Mx-C-2005 major structural protein
VP28 (VP28) gene, partial cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 506 ..... 527

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 646 ..... 627

>GQ328029.1 Shrimp white spot syndrome virus isolate 03 VP28 gene, complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 368 ..... 389

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 508 ..... 489

>EF194079.1 Shrimp white spot syndrome virus VP28 envelope protein gene, complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 368 ..... 389

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 508 ..... 489

>DQ979320.1 Shrimp white spot syndrome virus VP28 gene, complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 368 ..... 389

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 508 ..... 489

>AY682926.1 Shrimp white spot syndrome virus VP28 gene, complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 368 ..... 389

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 508 ..... 489

>AY249443.1 Shrimp white spot syndrome virus isolate Japan 98 VP28 gene, complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 392 ..... 413

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 532 ..... 513

```

```

>AY249442.1 Shrimp white spot syndrome virus isolate US 98/South Carolina VP28 gene,
complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 392 ..... 413

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 532 ..... 513

>AY249441.1 Shrimp white spot syndrome virus isolate Indonesia 97 VP28 gene, complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 390 ..... 411

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 530 ..... 511

>AY249440.1 Shrimp white spot syndrome virus isolate China 99/Qindao VP28 gene, complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 391 ..... 412

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 531 ..... 512

>AY249434.1 Shrimp white spot syndrome virus VP28 mRNA, complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 392 ..... 413

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 532 ..... 513

>AF502435.1 Shrimp white spot syndrome virus vp28 gene, complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 368 ..... 389

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 508 ..... 489

>AF272979.1 Shrimp white spot syndrome virus 25kDa structural protein VP25 gene, complete
cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 803 ..... 824

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 943 ..... 924

>DQ013883.1 Shrimp white spot syndrome virus from India VP28 gene, complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 368 ..... 389

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 508 ..... 489

>AJ937859.1 Shrimp white spot syndrome virus partial vp28 gene for VP28 envelope protein,
isolate Mexican

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 272 ..... 293

```

```

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      412      ..... 393

>AF369029.2 White spot syndrome virus, complete genome

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      368      ..... 389

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      508      ..... 489

product length = 2817
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      7245     ...C.....TTC.A... 7266

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      10061     .TT.GT.....A..... 10042

product length = 1887
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      265458     A.G...TA..... 265439

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      263572     CT.T.T....T.....T 263591

product length = 500
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      245315     ..AG.GG..G.....C 245296

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      244816     CTG..T..A..... 244835

product length = 2067
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      211732     ..A..ATATT.....G. 211753

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      213798     CAT..T.....T..... 213779

product length = 1773
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      211732     ..A..ATATT.....G. 211753

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      213504     CA.T.T.....A..... 213485

product length = 1746
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      219796     CC.T.T.....T... 219777

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      218051     GC.GT.T...T.T..... 218070

product length = 2588
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      203526     CT..TC.....A..T... 203507

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      200939     AAA..GA...T..... 200958

product length = 2076

```

Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 211732 ..A..ATATT.....G. 211753

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 213807 .AGA.T.....A..T... 213788

product length = 78
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 58029 CTA..T....T.....C 58010

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 57952 CTT.TT....T.....G 57971

product length = 3674
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 212001 GCT.GG...G.....G 211982

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 208328 CAT.TT....T..... 208347

product length = 60
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 203526 CT..TC.....A..T... 203507

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 203467 CC.TTC....T.....T 203486

product length = 270
 Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 211732 ..A..ATATT.....G. 211753

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 212001 GCT.GG...G.....G 211982

product length = 3503
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 212001 GCT.GG...G.....G 211982

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 208499 CTT.TT....C.....T 208518

product length = 3491
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 212001 GCT.GG...G.....G 211982

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 208511 CCT..T....CGA..... 208530

product length = 3631
 Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 63397 GAA..T.A..T.....C 63378

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 59767 .C.TCTA..TG..... 59786

>AY422228.1 Shrimp white spot syndrome virus Vp28 gene, complete cds

product length = 141
 Forward primer 1 AGGTGTGGAACAACACATCAAG 22
 Template 368 389

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
 Template 508 489

```

>AJ551447.1 White spot syndrome baculovirus vp28 gene for vp28 structural protein

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 521 ..... 542

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 661 ..... 642

>AY168644.1 Shrimp white spot syndrome virus major virion protein VP28 gene, complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 368 ..... 389

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 508 ..... 489

>AF227911.1 White spot syndrome virus structural protein mRNA, complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 850 ..... 871

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 990 ..... 971

>AF380842.1 White spot syndrome virus major virion protein VP28 gene, complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 368 ..... 389

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 508 ..... 489

>AF440570.1 Shrimp white spot syndrome virus, complete genome

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 279232 ..... 279253

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 279372 ..... 279353

product length = 3380
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 279372 ..... 279353

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 275993 .CTT.TA..TG..... 276012

product length = 2817
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 286108 ...C.....TTC.A... 286129

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 288924 .TT.GT.....A..... 288905

product length = 1887
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 251354 A.G...TA..... 251335

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 249468 CT.T.T....T.....T 249487

product length = 500

```

| | | | |
|-----------------------|--------|----------------------|--------|
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 229874 | ..AG.GG..G.....C | 229855 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 229375 | CTG..T..A..... | 229394 |
| product length = 2067 | | | |
| Forward primer | 1 | AGGTGTGGAACAACATCAAG | 22 |
| Template | 196526 | ..A..ATATT.....G. | 196547 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 198592 | CAT..T.....T..... | 198573 |
| product length = 1773 | | | |
| Forward primer | 1 | AGGTGTGGAACAACATCAAG | 22 |
| Template | 196526 | ..A..ATATT.....G. | 196547 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 198298 | CA.T.T.....A..... | 198279 |
| product length = 1743 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 204590 | CC.T.T.....T... | 204571 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 202848 | GC.GT.T...T.T..... | 202867 |
| product length = 2588 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 188314 | CT..TC.....A..T... | 188295 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 185727 | AAA..GA...T..... | 185746 |
| product length = 2076 | | | |
| Forward primer | 1 | AGGTGTGGAACAACATCAAG | 22 |
| Template | 196526 | ..A..ATATT.....G. | 196547 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 198601 | .AGA.T.....A..T... | 198582 |
| product length = 78 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 42661 | CTA..T....T.....C | 42642 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 42584 | CTT.TT....T.....G | 42603 |
| product length = 3674 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 196795 | GCT.GG...G.....G | 196776 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 193122 | CAT.TT....T..... | 193141 |
| product length = 60 | | | |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 188314 | CT..TC.....A..T... | 188295 |
| Reverse primer | 1 | TGCCAACTTCATCCTCATCA | 20 |
| Template | 188255 | CC.TTC....T.....T | 188274 |


```

product length = 2591
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      11599  .CAAT.....TT...G..  11580

```

```

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      9009   .ATAG.....T.....G  9028

```

```

product length = 270
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      196526  ..A..ATATT.....G.  196547

```

```

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      196795  GCT.GG...G.....G  196776

```

```

product length = 3503
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      196795  GCT.GG...G.....G  196776

```

```

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      193293  CTT.TT....C.....T  193312

```

```

product length = 3491
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      196795  GCT.GG...G.....G  196776

```

```

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      193305  CCT..T....CGA.....  193324

```

```

product length = 3631
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      48030   GAA..T.A..T.....C  48011

```

```

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      44400   .C.TCTA..TG.....  44419

```

```

product length = 1209
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      11599   .CAAT.....TT...G..  11580

```

```

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      10391   CTT..TA...T.....C  10410

```

```

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      15102   CCT.....GTA..C..  15083

```

```

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      14545   ATT.....AA.AT.....  14564

```

>AF173993.1 White spot syndrome virus 28 kDa structural protein VP28 (VP28) gene, complete cds

```

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      690   .....  711

```

```

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      830   .....  811

```

>MZ383199.1 White spot syndrome virus strain CSU0 outer membrane protein VP28 gene, partial cds

```

product length = 141
Forward primer 1      AGGTGTGGAACAACACATCAAG  22
Template      311   .....  332

```

```

Reverse primer 1    TGCCAACTTCATCCTCATCA 20
Template      451  .....C..... 432

>MZ383198.1 White spot syndrome virus strain CSU1 outer membrane protein VP28 gene, complete
cds

product length = 141
Forward primer 1    AGGTGTGGAACAACACATCAAG 22
Template      368  ..... 389

Reverse primer 1    TGCCAACTTCATCCTCATCA 20
Template      508  .....C..... 489

>MZ383197.1 White spot syndrome virus strain CSU2 outer membrane protein VP28 gene, complete
cds

product length = 141
Forward primer 1    AGGTGTGGAACAACACATCAAG 22
Template      368  ..... 389

Reverse primer 1    TGCCAACTTCATCCTCATCA 20
Template      508  .....C..... 489

>MZ383196.1 White spot syndrome virus strain CSU3 outer membrane protein VP28 gene, complete
cds

product length = 141
Forward primer 1    AGGTGTGGAACAACACATCAAG 22
Template      368  ..... 389

Reverse primer 1    TGCCAACTTCATCCTCATCA 20
Template      508  .....C..... 489

>MZ383195.1 White spot syndrome virus strain CSU4 outer membrane protein VP28 gene, partial
cds

product length = 141
Forward primer 1    AGGTGTGGAACAACACATCAAG 22
Template      254  ..... 275

Reverse primer 1    TGCCAACTTCATCCTCATCA 20
Template      394  .....C..... 375

>MF489075.1 White spot syndrome virus isolate BAN_SH_SU-3_2015 envelope protein (VP28) gene,
partial cds

product length = 141
Forward primer 1    AGGTGTGGAACAACACATCAAG 22
Template      338  ..... 359

Reverse primer 1    TGCCAACTTCATCCTCATCA 20
Template      478  .....C..... 459

>KR083851.1 White spot syndrome virus isolate EG23 WSV_VP28 gene, partial cds

product length = 141
Forward primer 1    AGGTGTGGAACAACACATCAAG 22
Template      272  ..... 293

Reverse primer 1    TGCCAACTTCATCCTCATCA 20
Template      412  .....C..... 393

>KR083850.1 White spot syndrome virus isolate EG22 WSV_VP28 gene, partial cds

product length = 141
Forward primer 1    AGGTGTGGAACAACACATCAAG 22
Template      272  ..... 293

Reverse primer 1    TGCCAACTTCATCCTCATCA 20
Template      412  .....C..... 393

```

```

>KR083849.1 White spot syndrome virus isolate EG21 WSV_VP28 gene, partial cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 272 ..... 293

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 412 .....C..... 393

>KP219387.1 White spot syndrome virus isolate BAN_SH_MU-23_2014 VP28 gene, complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 368 ..... 389

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 508 .....C..... 489

>KJ817413.1 White spot syndrome virus isolate BAN_SH_AL-1_2014 VP28 gene, partial cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 272 ..... 293

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 412 .....C..... 393

>EF661844.1 Shrimp white spot syndrome virus coat protein (VP28) gene, complete cds

product length = 141
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 368 ..A..... 389

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 508 ..... 489

>MG432478.1 Shrimp white spot syndrome virus isolate GVE05

product length = 2817
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 230011 ...C.....TTC.A... 230032

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 232827 .TT.GT.....A..... 232808

product length = 1887
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 204429 A.G...TA..... 204410

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 202543 CT.T.T....T.....T 202562

product length = 500
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 184293 ..AG.GG..G.....C 184274

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 183794 CTG..T..A..... 183813

product length = 2066
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 152840 ..A..ATATT.....G. 152861

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 154905 CAT..T.....T..... 154886

```

```

product length = 1772
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 152840 ..A..ATATT.....G. 152861

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 154611 CA.T.T.....A..... 154592

product length = 2585
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 144603 CT..TC.....A..T... 144584

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 142019 AAA..GA...T..... 142038

product length = 2075
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 152840 ..A..ATATT.....G. 152861

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 154914 .AGA.T.....A..T... 154895

product length = 78
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 9004 CTA..T....T.....C 8985

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 8927 CTT.TT....T.....G 8946

product length = 3673
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 153108 GCT.GG...G.....G 153089

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 149436 CAT.TT....T..... 149455

product length = 60
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 144603 CT..TC.....A..T... 144584

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 144544 CC.TTC....T.....T 144563

product length = 269
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 152840 ..A..ATATT.....G. 152861

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 153108 GCT.GG...G.....G 153089

product length = 3502
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 153108 GCT.GG...G.....G 153089

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 149607 CTT.TT....C.....T 149626

product length = 3490
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 153108 GCT.GG...G.....G 153089

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 149619 CCT..T....CGA..... 149638

```

```

product length = 3631
Reverse primer 1      TGCCAACCTTCATCCTCATCA  20
Template       14371  GAA..T.A..T.....C  14352

Reverse primer 1      TGCCAACCTTCATCCTCATCA  20
Template       10741  .C.TCTA..TG.....  10760

>JX027482.1 Shrimp white spot syndrome virus strain KKD WSV340 and WSV341 genes, complete
cds

product length = 500
Reverse primer 1      TGCCAACCTTCATCCTCATCA  20
Template       760    ..AG.GG..G.....C  741

Reverse primer 1      TGCCAACCTTCATCCTCATCA  20
Template       261    CTG..T..A.....  280

>AY897235.1 Shrimp white spot syndrome virus envelope protein (VP32) mRNA, complete cds

product length = 500
Reverse primer 1      TGCCAACCTTCATCCTCATCA  20
Template       623    CTG..T..A.....  604

Reverse primer 1      TGCCAACCTTCATCCTCATCA  20
Template       124    ..AG.GG..G.....C  143

>AF343568.1 Shrimp white spot syndrome virus putative TATA-box binding protein gene,
complete cds; and unknown genes

product length = 1746
Reverse primer 1      TGCCAACCTTCATCCTCATCA  20
Template       8931    GC.GT.T...T.T.....  8912

Reverse primer 1      TGCCAACCTTCATCCTCATCA  20
Template       7186    CC.T.T.....T...  7205

>AY126666.1 Shrimp white spot syndrome virus outer membrane protein gene, complete cds

product length = 1746
Reverse primer 1      TGCCAACCTTCATCCTCATCA  20
Template       5570    CC.T.T.....T...  5551

Reverse primer 1      TGCCAACCTTCATCCTCATCA  20
Template       3825    GC.GT.T...T.T.....  3844

>KR083843.1 White spot syndrome virus isolate EG8 open reading frame variable region 23/24
genomic sequence

product length = 2518
Reverse primer 1      TGCCAACCTTCATCCTCATCA  20
Template       6496    .CAAT.....TT...G..  6477

Reverse primer 1      TGCCAACCTTCATCCTCATCA  20
Template       3979    .ATAG.....T.....G  3998

product length = 1135
Reverse primer 1      TGCCAACCTTCATCCTCATCA  20
Template       6496    .CAAT.....TT...G..  6477

Reverse primer 1      TGCCAACCTTCATCCTCATCA  20
Template       5362    CTT..TA...T.....C  5381

>KR083841.1 White spot syndrome virus isolate EG6 open reading frame variable region 23/24
genomic sequence

product length = 2491
Reverse primer 1      TGCCAACCTTCATCCTCATCA  20
Template       7091    .CAAT.....TT...G..  7072

```

```
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 4601 .ATAG.....T.....G 4620
```

```
product length = 1107
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 7091 .CAAT.....TT...G.. 7072
```

```
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 5985 CTT..TA...T.....C 6004
```

>KF771907.1 White spot syndrome virus strain SC97 open reading frame variable region 23/24 genomic sequence

```
product length = 2491
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 7091 .CAAT.....TT...G.. 7072
```

```
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 4601 .ATAG.....T.....G 4620
```

```
product length = 1107
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 7091 .CAAT.....TT...G.. 7072
```

```
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 5985 CTT..TA...T.....C 6004
```

>KF771905.1 White spot syndrome virus strain TX97 open reading frame variable region 23/24 genomic sequence

```
product length = 2518
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 6496 .CAAT.....TT...G.. 6477
```

```
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 3979 .ATAG.....T.....G 3998
```

```
product length = 1135
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 6496 .CAAT.....TT...G.. 6477
```

```
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 5362 CTT..TA...T.....C 5381
```

>AF394231.1 Shrimp white spot syndrome virus nucleocapsid protein (vp35) gene, complete cds

```
product length = 2591
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 3421 .CAAT.....TT...G.. 3402
```

```
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 831 .ATAG.....T.....G 850
```

```
product length = 1209
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 3421 .CAAT.....TT...G.. 3402
```

```
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 2213 CTT..TA...T.....C 2232
```

```
product length = 558
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 6924 CCT.....GTA..C.. 6905
```

```
Reverse primer 1 TGCCAACCTTCATCCTCATCA 20
Template 6367 ATT.....AA..AT..... 6386
```

```

>KX501223.1 Shrimp white spot syndrome virus strain WSSV-TH-14-E isolate R9/12 variable
region ORF23/24 genomic sequence

product length = 1045
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      1545  CCT.....GTA..C..  1526

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      501  CTT.CT.....T.....T  520

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      1545  CCT.....GTA..C..  1526

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      988  ATT.....AA.AT.....  1007

>KC484341.1 Shrimp white spot syndrome virus strain WSSV-BH1009-01 ORF23/24 variable region
genomic sequence

product length = 1507
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      2007  CCT.....GTA..C..  1988

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      501  CTT.CT.....T.....T  520

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      2007  CCT.....GTA..C..  1988

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      1450  ATT.....AA.AT.....  1469

>EU327499.1 Shrimp white spot syndrome virus strain WSSV-IN-05-I ORF23/24 gene, partial cds

product length = 1494
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      2045  CCT.....GTA..C..  2026

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      552  CTT.CT.....T.....T  571

product length = 552
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      2045  CCT.....GTA..C..  2026

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      1494  ATT.....AA.AT.....  1513

>EU327500.1 Shrimp white spot syndrome virus isolate WSSV-IN-05-II variable ORF23/ORF24
region, genomic sequence

product length = 1500
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      2275  CCT.....GTA..C..  2256

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      776  CTT.CT.....T.....T  795

product length = 558
Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      2275  CCT.....GTA..C..  2256

Reverse primer 1      TGCCAACTTCATCCTCATCA  20
Template      1718  ATT.....AA.AT.....  1737

```

>KR083845.1 White spot syndrome virus isolate EG10 open reading frame variable region 23/24 genomic sequence

```
product length = 558
Reverse primer  1      TGCCAAC TTCATCCTCATCA  20
Template        7547  CCT.....GTA..C..  7528

Reverse primer  1      TGCCAAC TTCATCCTCATCA  20
Template        6990  ATT.....AA.AT.....  7009
```

>KR083839.1 White spot syndrome virus isolate EG4 open reading frame variable region 23/24 genomic sequence

```
product length = 558
Reverse primer  1      TGCCAAC TTCATCCTCATCA  20
Template        5037  CCT.....GTA..C..  5018

Reverse primer  1      TGCCAAC TTCATCCTCATCA  20
Template        4480  ATT.....AA.AT.....  4499
```

>KF771909.1 White spot syndrome virus strain DC96 open reading frame variable region 23/24 genomic sequence

```
product length = 558
Reverse primer  1      TGCCAAC TTCATCCTCATCA  20
Template        5037  CCT.....GTA..C..  5018

Reverse primer  1      TGCCAAC TTCATCCTCATCA  20
Template        4480  ATT.....AA.AT.....  4499
```

>KF771903.1 White spot syndrome virus strain TX02 open reading frame variable region 23/24 genomic sequence

```
product length = 558
Reverse primer  1      TGCCAAC TTCATCCTCATCA  20
Template        7547  CCT.....GTA..C..  7528

Reverse primer  1      TGCCAAC TTCATCCTCATCA  20
Template        6990  ATT.....AA.AT.....  7009
```

>KF225733.1 White spot syndrome virus from USA variable region 23/24 sequence

```
product length = 558
Reverse primer  1      TGCCAAC TTCATCCTCATCA  20
Template        4954  CCT.....GTA..C..  4935

Reverse primer  1      TGCCAAC TTCATCCTCATCA  20
Template        4397  ATT.....AA.AT.....  4416
```


Primer pair 2

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|------------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | GTAAGTGGCCCTTCCATCTCCA | 22 | 61.75 | 54.55 | 3.00 | 0.00 |
| Rv | TACGGCAGCTGCTGCACCTTGT | 22 | 67.22 | 59.09 | 9.00 | 3.00 |

product length = 1690
Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 49549 .GAT..T.....T....C. 49528

Reverse primer 1 TACGGCAGCTGCTGCACCTTGT 22
Template 47860 .GT.C.C.....CA....C 47881

Primer pair 4

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|----------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | CCAGTTCAGAATCGGACGTT | 20 | 57.92 | 50.00 | 5.00 | 2.00 |
| Rv | AAAGACGCCTACCCTGTTGA | 20 | 58.95 | 50.00 | 4.00 | 1.00 |

product length = 681
Forward primer 1 CCAGTTCAGAATCGGACGTT 20
Template 7058 T....AA..GC.....A 7077

Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 7738 ..C.TG...GC..... 7719

product length = 806
Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 148363 G.GA..A.G...T..... 148344
Reverse primer 1 AAAGACGCCTACCCTGTTGA 20
Template 147558 TT.C....AGG.....A. 147577

Primer pair 5

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|----------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | TGGCTACATCTGCATTGCTC | 20 | 58.33 | 50.00 | 5.00 | 1.00 |
| Rv | TAGAGACGTGGCTGGAGAGG | 20 | 60.39 | 60.00 | 4.00 | 0.00 |

Forward primer 1 TGGCTACATCTGCATTGCTC 20
Template 163126 .T.GACT.....A 163107

product length = 1328
Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 278913 GC...TA....GA..... 278894
Reverse primer 1 TAGAGACGTGGCTGGAGAGG 20
Template 277586 .GCG.CG.G..... 277605

Primer pair 7

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|----------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | TCTTCATCAGATGCTACTGC | 20 | 54.96 | 45.00 | 7.00 | 2.00 |
| Rv | TAACGCTATCCAGTATCACG | 20 | 54.53 | 45.00 | 4.00 | 3.00 |

product length = 3019
Forward primer 1 TCTTCATCAGATGCTACTGC 20
Template 35116 A.A...A..A.CT..... 35135
Reverse primer 1 TAACGCTATCCAGTATCACG 20
Template 38134 G..G.GA.AA.....T 38115

Primer pair 8

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|-----------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | AAGCATCGTGGAGACTCTTGC | 21 | 60.67 | 52.38 | 5.00 | 2.00 |
| Rv | GAAGATTCGCCGCTCATACC | 20 | 58.86 | 55.00 | 4.00 | 0.00 |

product length = 3691
Forward primer 1 AAGCATCGTGGAGACTCTTGC 21
Template 37200 37220
Forward primer 1 AAGCATCGTGGAGACTCTTGC 21
Template 40890 CT...C.AC..C.G..... 40870

Primer pair 9

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|-----------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | TTGGTTTCATGCCCCGAGATT | 20 | 57.79 | 45.00 | 4.00 | 1.00 |
| Rv | CCTTGGTCAGCCCCCTTGA | 18 | 58.83 | 61.11 | 3.00 | 1.00 |

product length = 589
Forward primer 1 TTGGTTTCATGCCCCGAGATT 20
Template 98511 A...A...AC.T..... 98530
Reverse primer 1 CCTTGGTCAGCCCCCTTGA 18
Template 99099 T.....CA.A.....G 99082

Primer pair 10

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|------------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | CCCACACAGACAATATCGAGAC | 22 | 58.55 | 50.00 | 4.00 | 2.00 |
| Rv | TCGCTGTCAAAGGACACATC | 20 | 58.20 | 50.00 | 4.00 | 0.00 |

product length = 2031
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 137187 .AG.....G..T.T...C. 137208
product length = 109
Forward primer 1 CCCACACAGACAATATCGAGAC 22
Template 68G..... 89

Primer pair 11

| Primer | Sequence (5'-3') | Length | Tm | GC% | Self complementarity | Self 3' complementarity |
|--------|------------------------|--------|-------|-------|----------------------|-------------------------|
| Fw | AGGTGTGGAACAACACATCAAG | 22 | 59.05 | 45.45 | 6.00 | 1.00 |
| Rv | TGCCAACTTCATCCTCATCA | 20 | 56.82 | 45.00 | 3.00 | 2.00 |

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 237870 .CTT.TA..TG..... 237889
product length = 2817
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 247971 ...C.....TTC.A... 247992
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 250787 .TT.GT.....A..... 250768
product length = 1887
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 213235 A.G...TA..... 213216
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 211349 CT.T.T....T.....T 211368
product length = 500
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 193088 ..AG.GG..G.....C 193069
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 192589 CTG..T..A..... 192608

```

product length = 2067
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 159799 ..A..ATATT.....G. 159820

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 161865 CAT..T.....T..... 161846

product length = 1773
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 159799 ..A..ATATT.....G. 159820

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 161571 CA.T.T.....A..... 161552

product length = 1743
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 167860 CC.T.T.....T.... 167841

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 166118 GC.GT.T...T.T..... 166137

product length = 2585
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 151594 CT..TC.....A..T... 151575

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 149010 AAA..GA...T..... 149029

product length = 1778
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 274310 CCT.....GTA..C... 274291

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 272533 .CA....T.....A.C... 272552

product length = 2076
Forward primer 1 AGGTGTGGAACAACACATCAAG 22
Template 159799 ..A..ATATT.....G. 159820

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 161874 .AGA.T.....A..T... 161855

product length = 78
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 13818 CTA..T....T.....C 13799

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 13741 CTT.TT....T.....G 13760

product length = 3671
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 160068 GCT.GG...G.....G 160049

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 156398 CAT.TT....T..... 156417

product length = 60
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 151594 CT..TC.....A..T... 151575

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 151535 CC.TTC....T.....T 151554

```

```

product length = 2546
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 151594 CT..TC.....A..T... 151575

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 149049 CTT..T.C..C.....C 149068

product length = 3062
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 154596 .A..TC..CTC..... 154577

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 151535 CC.TTC....T.....T 151554

product length = 270
Forward primer 1 AGGTGTGGAACAACATCAAG 22
Template 159799 ..A..ATATT.....G. 159820

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 160068 GCT.GG...G.....G 160049

product length = 3500
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 160068 GCT.GG...G.....G 160049

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 156569 CTT.TT....C.....T 156588

product length = 3488
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 160068 GCT.GG...G.....G 160049

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 156581 CCT..T....CGA..... 156600

product length = 3631
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 19186 GAA..T.A..T.....C 19167

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 15556 .C.TCTA..TG..... 15575

product length = 3050
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 274310 CCT.....GTA..C.. 274291

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 271261 CTT.CT.....T.....T 271280

product length = 558
Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 274310 CCT.....GTA..C.. 274291

Reverse primer 1 TGCCAACTTCATCCTCATCA 20
Template 273753 ATT.....AA.AT..... 273772

```