

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)	1	-----ATGAATCCAAATCAAA
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)		--AGTGAAAAATGAATCCAAATCAAA
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)		-----ATGAATCCAAATCAAA
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)		--AGTGAAAAATGAATCCAAATCAAA
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)		-----AAGATGAATCCAAATCAAA
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)		-----AAGATGAATCCAAATCAAA
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)		-----AGATGAATCCAAATCAAA
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)		-----ATGAATCCAAACCAAA
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)		-----ATGAATCCAAACCAAA
GQ132138.1 _H1N1_A/Mexico/IndRE4114/2009		-----TTAAAAATGAATCCAAACCAAA
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)		GAGTTTAAAAATGAATACAAATCAAA
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)		-----ATGAATCCAAATCAAA
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)		-----AATGAATCCAAATCAGA
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)		----TTTTAAATGAATCCAAACCAAA
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)		-----ATGAATCCAAATCAGA
CY020447_H1N1_A/Henry/1936_USA_6_(NA)		-----ATGAATCCAAATCAGA
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)		GAGTTTAAAAATGAATCCAAATCAAA
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)		-----ATGAATCCAAATCAGA
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)		GAGTTTAAAAATGAATCCAAATCAGA
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)		---TTTTAAAAATGAATCCAAATCAGA
AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)	26	AGATAATAGCACITGGCTCTGTTTC
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)		AGACAATAACAATTTGGCTCTGTCTC
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)		AGATAATAACAATTTGGCTCTGTCTC
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)		AGATAATAACAATTTGGCTCTGTCTC
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)		AGATAATAACGATTTGGCTCTGTTTC
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)		AGATAATAACAATTTGGCTCTGTTTC
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)		AGATAATAACAATTTGGCTCTGTTTC
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)		AGATAATAACCAATTTGGTTCCGCTCTG
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)		AGATAATAACCAATTTGGTTCCGCTCTG
GQ132138.1 _H1N1_A/Mexico/IndRE4114/2009		AGATAATAACCAATTTGGTTCCGCTCTG
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)		GAATAATAACCAATTTGGGACAATCTG
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)		AAATAATAACCAATTTGGGTCAATCTG
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)		AAATAATAACCAATTTGGATCAATCTG
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)		AAATAATAACCAATTTGGGTCAATCTG
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)		AAATAATAACCAATTTGGGTCAATCTG
CY020447_H1N1_A/Henry/1936_USA_6_(NA)		AAATAATAACCAATTTGGATCAATCTG
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)		AAATAATAACCAATTTGGATCAATCAG
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)		AAATAATAACCAATTTGGATCAATCTG
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)		AAATAATAACCAATTTGGATCAATCTG
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)		AAATAATAACCAATTTGGATCGATCTG
AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)	51	TATAACTATTGCGACAATATGTTTA
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)		TCTCACCATTGAAACAGTATGCTTC
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)		TCTCACCATTGCAACAGCATGCTTC
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)		TCTCACCATTGCAACAGTATGCTTC
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)		TCTCACCATTGCCACAATATGCTTC
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)		TCTCACTATTGCCACAATATGCTTT
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)		TCTCACTATTACCACAATATGCTTC
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)		TATGACAATTGGAATAGCTAAGCTTA
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)		TATGACAATTGGAATGGCTAAGCTTA
GQ132138.1 _H1N1_A/Mexico/IndRE4114/2009		TATGACAATTGGAATGGCTAAGCTTA
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)		TCTAATAGTTTGGGAATAATTAGTCTA
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)		TATGGTAGTCGGAATAATTAGCCTA
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)		TATGGTAGTCGGAATAATTAGCCTA
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)		TATGGTAGTCGGAATAATTAGCCTA
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)		TATGGTAGTCGGAATAATTAGCCTA
CY020447_H1N1_A/Henry/1936_USA_6_(NA)		TATGGTAGTCGGAATAATTAGCCTA
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)		TATGACAATCGGAATAATTAGTCTA
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)		TATGACAATCGGAACAATTAGTCTA
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)		TATGGCAATCGGAATAATTAGTCTA
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)		TATGACAATCGGAATAATTAGTCTA

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

CTCATGCAGAT-----TGCCATCT
CTCATGCAGAT-----TGCCATCC
CTCATGCAGAT-----TGCCATCC
CTCATGCAGAT-----TGCCATCT
TTCATGCAAAAT-----TGCCATCT
CTTATGCAAAAT-----TGCCATCC
CTTATGCAAAAT-----TGCCATCC
ATATTACAAATTTGAAACATAATCT
ATATTACAAATTTGAAACATAATCT
ATATTACAAATTTGAAACATAATCT
TTATTGCAGATAGGAAATATAATCT
ATATTGCAAAATAGGGAATATAATCT
ATATTGCAAAATAGGGAATATTGTCT
ATATTGCAAAATAGGGAATATAATCT
ATATTGCAAAATAGGGAATATAATCT
ATATTGCAAAATAGGGAATATAATCT
ATATTGCAAAATAGGGAATATAATCT
ATGTTGCAAAATAGGAAATATTATT
ATATTGCAAAATAGGGAATATTATCT
ATATTGCAAAATAGGGAATATTATCT
ATATTGCAAAATAGGAAATATTATT

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

CAA --- TGAATGTACCAACCCATC
 TAAGCAACATGAGTGC GACTCCCCC
 TAAGCAACATGAGTGC GACTCCCCC
 TAAGCAATATGAGTGC GACTCCCCC
 CAAGCAATATGAATTCAACTCCCCC
 CAAGCAATATGAGTGC GACTCCCCC
 CAAGCAATGTGAATGCAACTCCCCC
 CAACT--TGGGAATCAAAATCAGAT
 CAACT--TGGGAATCAAAATCAGAT
 CAACT--TGGGAATCAAAATCAGAT
 CAGAC--TGGGAGAAAAAGCCATCC
 CAAAC--TGGGAATCAAAACCATCC
 CAAAC--TGGAAATCAAAACCATAC
 CAAAC--CGGAAATCAAAACCATAC
 CAAGC--TGGGAGT-----
 CAAAC--TGGGAAGTCAAAACCATAC
 CAAAC--TGGGAAGTCAAAACCATAC
 CAAAC--TGGGAAGTCAAAACCATAC
 CAAAC--TGGGAAGTCAAAACCATAC
 CAAAC--TGGGAAGTCAAAACCATAC

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
 CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
 CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
 CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
 CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
 CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
 CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
 JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
 CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
 GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
 CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
 AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
 CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
 CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
 CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
 CY020447_H1N1_A/Henry/1936_USA_6_(NA)
 CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
 CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
 CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
 CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

151

```
--GAACAATCAAGCAGTGCCATGTG
GCGAGCAACCAAGTAATGCCATGTG
GCGAGCAACCAAGTAATGCCGTGTG
GCGAGCAACCAAGTAATGCCGTGTG
CCAAACAACCAAGTATGCTGTGTG
CCAAACAACCAAGTATGCTGTGTG
CCAAACAACCAAGTATGCTGTGTG
TGAAACATGCAATCAAAGCGTCATT
TGAAACATGCAATCAAAGCGTCATT
TAAGGTATGCAACCAAGTGTTCATT
TGAAACATGCAACCAAGCATCATT
TGGAACCTTGCAACCAAGCATCATT
TGGAATATGCAACCAAGGCATCATT

TGGAATATGCAACCAAAACATCATT
TGGAATATGCAACCAAGGAATCATC
TGGAATATGCAACCAAGGAATCATT
AGGAATATGCAACCAAGGAATCATT
TGGAATATGCAACCAAGGAATCATT
```

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
 CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
 CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
 CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
 CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
 CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
 CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
 JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
 CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
 GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
 CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
 AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
 CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
 CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
 CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
 CY020447_H1N1_A/Henry/1936_USA_6_(NA)
 CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
 CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
 CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
 CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

176

```
AACCAATCATAATAGAAAGGAACAT
AACCAATAATAATAGAAAGGAACAT
AACCAATAATAATAGAAAGGAACAT
AACCAATAATAATAGAAAGGAACAT
AACCAACAATAATAGAAAAAACAT
AACCAACAATAATAGAAAGAACAT
AACCAACAATAATAGAAAGAACAT
ACTTATGAAAAAACACTTGGGTAA
ACTTATGAAAAAACACTTGGGTAA
ACTTATGAAAAAACACTTGGGTAA
ACCTATGAAAAAACACATGGGTGA
ACCTATGAAAAAACAACCTGGGTGA
ACCTATAAAAAATAGCACCTGGGTAA
ACCTA-----AGCACCTGGGTGA
ACCTATAAAAAATAGCACCTGGGTAA
ACATATGAAAAACAGCACCTGGGTGA
ACCTATGAAAAAACAACCTGGGTAA
ACCTATGAAAAAATAGCACCTGGGTAA
ACCTATGAAAAATAGCACCTGGGTAA
```

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
 CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
 CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
 CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
 CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
 CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
 CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
 JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
 CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
 GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
 CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
 AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
 CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
 CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
 CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
 CY020447_H1N1_A/Henry/1936_USA_6_(NA)
 CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
 CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
 CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
 CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

201

```
AACAGAGATA-GTGCATTTGAATAA
AACAGAGATA-GTGTATTTGAATAA
AACAGAGATA-GTGTATTTGAATAA
AACAGAGATA-GTGTATTTGAATAA
AACAGAGATA-GTGTATCTGACCAA
AACAGAGATA-GTGTATCTGACCAA
ATCAGACATATGTTAACATCAGCAA
ATCAGACATATGTTAACATCAGCAA
ACCAGACTTATGTTAACATTAGCAA
ATCAAACATATGTTAACATTAGCAA
ATCAGACATATGTTAATATTAGCAA
ATCAAACATATGTTAATATTAGCAA
ATCAGACATATGTTAATATTAGCAA
ATCAAACATATGTTAATATTAGCAA
ATCAAACATATGTTAATATTAGCAA
ATCAAACATATGTTAATATTAGCAA
ATCAAACATATGTTAATATTAGCAA
```

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

[illegible]

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

GAAAGTTGTCCTAAAGTAGCAGAAT
 GAGATTTGCCCGAAGTAGTGAAT
 GAGATCTGCCCGAAAGTAGTGAAT
 GAGATATGCCCGAAAGTAGTGAAT
 GAAATATGCCCGAAACTAGCAGAAT
 GAGATATGCCCGAAACTAGTGAAT
 GAAATATGCCCGAAACTAGCAGAAT
 GTGGTTTCCGTGAAATTAGC-----
 GTGGTTTCCGTGAAATTAGC-----
 GTGGTTTCCGTGAAATTAGC-----
 GTGACTCCAATAACTAGC-----
 GCAACTTCAGTGATATTAAAC-----
 ACAACTTCAGTGATATTAGC-----
 TCAACTTCAGTGATATTAAAC-----
 GCAACTTCAGTGATATTAAAC-----
 ACAACTTCAGTGATATTAAAC-----
 AAAACTTCAGTGACATTGGC-----
 ACAACTTCAATGATATTAGC-----
 ACAACTTCAATGATATTAGC-----
 ACAACTTCAGTGACATTAGC-----

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

Sequence logo for the 10bp motif. The logo shows the conservation of nucleotides at each position. The top sequence is ACAAGAAATTGGTCAAAAGCCGCAATG. The logo indicates that positions 1-4 (ACAAG) and positions 9-10 (CAAT) are highly conserved, while positions 5-8 (AATTGGTCAA) show more variability. The bottom sequence is GGGCAATTTCCTCTCTCTG.

301

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
 CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
 CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
 CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
 CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
 CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
 CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
 JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
 CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
 GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
 CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
 AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
 CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
 CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
 CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
 CY020447_H1N1_A/Henry/1936_USA_6_(NA)
 CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
 CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
 CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
 CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

TCAAATTACAGGGTTGCCCCCTTTT
 TCAAATTACAGGATTTGCACCTTTT
 TCAAATTACAGGATTTGCACCTTTT
 TCAAATTACAGGATTTGCACCTTTT
 TGACATTACAGGATTTGCACCTTTT
 TAAATTTACAGGATTTGCACCTTTT
 TAAATTTACAGGATTTGCACCTTTT
 CCCTGTTAGTGGATGGGCTATATAC
 CCCTGTTAGTGGATGGGCTATATAC
 CCCAATCAGTGGGTGGGCTATATAC
 TCCCATCAGTGGGTGGGCTATATAC
 CCCTATCCGTGGGTGGGCTATATAC
 TCCCATCCGTGGGTGGGCTATACAC
 TCCCATCCGTGGGTGGGCTATATAC
 TCCCATCCGTGGGTGGGCTATATAC
 TTCTATCAGTGGATGGGCTATATAC
 TCCTATCCGTGGGTGGGCTATATAC
 TCCTATCCGTGGGTGGGCTATATAC
 TCCTATCCGTGGGTGGGCTATATAC

326

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
 CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
 CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
 CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
 CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
 CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
 CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
 JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
 CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
 GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
 CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
 AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
 CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
 CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
 CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
 CY020447_H1N1_A/Henry/1936_USA_6_(NA)
 CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
 CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
 CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
 CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

TCCAAGGACAACCTCAATTAGGCTTTT
 TCTAAGGACAATTCAATCCGGCTTTT
 TCTAAGGACAATTCAATCCGGCTTTT
 TCTAAGGACAATTCAATCCGGATTTT
 TCTAAGGACAACCTCGATTAGGCTTTT
 TCTAAGGACAACCTCAATTCCGGCTTTT
 AGTAAAGACAACAGTATAAGAATCG
 AGTAAAGACAACAGTATAAGAATCG
 AGTAAAGACAACAGTATAAGAATCG
 AGCAAAGACAATAGCATAAGGATTG
 AGCAAAGACAATGGCATAAGAATTG
 AGCAAAGACAATGGCGTAAAGAATTG
 AGCAAAGACAATGGCATAAGAATTG
 AGCAAAGACAATGGCATAAGAATTG
 AGCAAAGACAATAGCATAAGAATTG
 ACAAAGACAACAGCATAAGAATTG
 AGCAAAGACAACAGCATAAGGATTG
 AGCAAAGACAACAGCATAAGAATTG
 AGCAAAGACAACAGCATAAGAATTG

351

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
 CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
 CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
 CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
 CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
 CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
 CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
 JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
 CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
 GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
 CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
 AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
 CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
 CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
 CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
 CY020447_H1N1_A/Henry/1936_USA_6_(NA)
 CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
 CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
 CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
 CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

CTGCAAGGCGGGGATATTTGGGTGAC
 CTGCTGGTGGGGACATTTGGGTGAC
 CTGCTGGTGGGGACATTTGGGTGAC
 CTGCTGGTGGGGACATTTGGGTGAC
 CAGCTGGTGGGGACATCTGGGTGAC
 CCGCTGGTGGGACATTTGGGTGAC
 CCGCTGGTGGGACATTTGGGTGAC
 GTTCCAAGGGGGATGTGTTTGTTCAT
 GTTCCAAGGGGGATGTGTTTGTTCAT
 GTTCCAAGGGAGACATTTTGTTCAT
 GTTCCAAGGGAGACGTTTTTGTTCAT
 GTTCCAAGGGAGATGTTTTTGTTCAT
 GTTCCAAGGGAGACATTTTGTTCAT
 GTTCCAAGGGAGACATTTTGTTCAT
 GTTCCAAGGGAGATGTTTTTGTTCAT
 GTTCCAAGGGAGATGTTTTTGTTCAT
 GTTCCAAGGGAGATGTTTTTGTTCAT
 GTTCCAAGGGAGATGTTTTTGTTCAT

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

AAGAGAAACCTTATGATGTCATGCGAT
GAGAGAAACCTTATGATGTCATGCGAT
GAGAGAAACCTTATGATGTCATGCGAT
GAGAGAAACCTTATGATGTCATGCGAT
AAGAGAAACCTTATGATGTCATGCGAT
AAGAGAAACCTTATGATGTCATGCGAT
AAGAGAAACCTTATGATGTCATGCGAT
AAGAGAAACCTTATGATGTCATGCGAT
AAGGGAAACCATTCATATCATGCTCC
AAGGGAAACCATTCATATCATGCTCC
AAGGGAAACCATTCATATCATGCTCC
GAGAGAGCCATTCATTCATGCTCT
AAGAGAGCCATTTTATTTTCATGTTCT
AAGAGAAACCTTTTATTTTCATGTTCT
AAGAGAGCCTTTATTTTCATGTTCT
AAGAGAGCCTTTATTTTCATGTTCT
AAGAGAGCCCTTTTATTTTCATGTTCT
AAGAGAGCCCTTTTATTTTCATGTTCT
AAGAGAAACCTTTTATATATCATGTTCT
AAGAGAAACCTTTTATATATCATGTTCT
AAGAGAAACCTTTTATATATCATGTTCT

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

Sequence logo for the 10bp motif. The y-axis represents information content in bits (0.00 to 0.40). The x-axis shows positions 1 to 10. The sequence logo shows a strong preference for T at position 1, G at position 2, A at position 3, C at position 4, and G at position 5. Positions 6-10 show a strong preference for T, G, C, T, A respectively.

Position	T	C	G	A
1	0.38	0.02	0.02	0.02
2	0.02	0.02	0.38	0.02
3	0.02	0.02	0.02	0.38
4	0.02	0.38	0.02	0.02
5	0.02	0.02	0.38	0.02
6	0.38	0.02	0.02	0.02
7	0.02	0.02	0.38	0.02
8	0.02	0.38	0.02	0.02
9	0.02	0.02	0.02	0.38
10	0.02	0.02	0.02	0.38

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

[illegible]

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

GATAGGAGTCCCATAGAACCCTTT
GATAGAATCCCTCATCGAACCCATAT
GATAGAATCCCTCATCGAACCCATAT
GATAGAATCCCTCATCGAACCCATAT
GATAGGACCCCTTATCGGACCCATAT
GATAGGACCCCTTATCGAACCCCTCT
GATAGGACCCCTTATCGAACCCATAT
GACAGGAGCCCATATCGAACCTT--
GACAGGAGCCCATATCGAACCCCT--
GACAGGAGCCCATATCGAACCCCT--
GACAGGAGTCCCTTATAGAACCCTT--
GACAGAAGCCCCATATAGAACCCTT--
GACAGAAGCCCTTATAGGGCCTT--
GACAGAAGCCCTTATAGGGCCTT--
GACAGAAGCCCTTATAGGGCCTT--
GACAGAAGCCCTTATAGGGCCTT--
GACAGAAGTCCCTTATAGGGCCTT--
GACAGAAGCCCTTATAGGGCCTT--
GACAGAAGCCCTTATAGGGCCTT--
GACAGAAGCCCTTATAGGGCCTT--

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

Sequence logo for the 10bp motif. The y-axis shows information content in bits (0.00 to 1.50). The x-axis shows positions 1 to 10. The logo is color-coded: blue for A, red for G, green for C, and yellow for T. The sequence TAATGAATGAGTTG is highlighted in blue. The sequence TGATGAATGAGTTA is highlighted in red. The sequence TGAATGAATGAGTTG is highlighted in green. The sequence TGAATGAATGAGTTG is highlighted in yellow.

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
 CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
 CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
 CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
 CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
 CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
 CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
 JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
 CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
 GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
 CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
 AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
 CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
 CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
 CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
 CY020447_H1N1_A/Henry/1936_USA_6_(NA)
 CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
 CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
 CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
 CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

Sequence logo for the 10bp region 5'-GTGTTCCATTTC-3'. The logo shows the conservation of each base position. The first 10 positions (GTGTTCCATTTC) are highly conserved, with 'T' at position 10 being the most frequent. The last 10 positions (AATTAGGAGAGAGAG) are less conserved, with 'A' at position 20 being the most frequent. The y-axis represents information content in bits, ranging from 0 to 2.5. The x-axis represents the 20 positions of the sequence.

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

51

A	A	C	C	A	A	A	C	A	G	T	G	C	A	T	A	G	C	A	T	G	G	
A	A	C	C	A	A	A	C	A	G	T	G	T	G	T	A	G	C	A	T	G	G	
A	A	C	C	A	G	G	C	A	G	T	G	T	A	T	A	G	C	A	T	G	G	
A	A	C	C	A	G	G	C	A	G	T	G	T	A	T	A	G	C	A	T	G	G	
G	A	C	C	A	A	G	C	A	A	G	T	G	C	A	T	A	G	C	A	T	G	G
A	A	C	C	A	A	G	C	A	A	G	T	G	C	A	T	A	G	C	A	T	G	G
A	A	C	C	A	A	G	C	A	A	G	T	G	C	A	T	A	G	C	A	T	G	G
A	T	T	T	G	A	G	T	C	A	G	T	C	---	---	---	---	G	O	T	T	G	G
A	T	T	T	G	A	G	T	C	A	G	T	C	---	---	---	---	G	O	T	T	G	G
A	T	T	T	G	A	G	T	C	A	G	T	C	---	---	---	---	G	O	T	T	G	G
G	T	T	C	G	A	A	T	C	A	G	T	T	---	---	---	---	G	O	T	T	G	G
G	T	T	C	G	A	A	T	C	G	G	T	T	---	---	---	---	G	O	T	T	G	G
G	T	T	T	G	A	A	T	C	G	G	T	T	---	---	---	---	G	O	T	T	G	G
G	T	T	T	G	A	A	T	C	G	G	T	T	---	---	---	---	G	O	T	T	G	G
G	T	T	T	G	A	A	T	C	G	G	T	T	---	---	---	---	G	O	T	T	G	G
A	T	T	T	G	A	A	T	C	G	G	T	T	---	---	---	---	G	O	T	T	G	G
G	T	T	T	G	A	A	T	C	A	G	T	T	---	---	---	---	G	C	A	T	G	G
A	T	T	T	G	A	A	T	C	G	G	T	T	---	---	---	---	G	O	T	T	G	G
G	T	T	T	G	A	A	T	C	G	G	T	T	---	---	---	---	G	O	T	T	G	G
G	T	T	T	G	A	A	T	C	A	G	T	T	---	---	---	---	G	O	T	T	G	G

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

[illegible]

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

[illegible]

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

CACTGGGGGATGATAGAAATGCAACT
CACTGGGGGATGATAGAAATGCAACT
CACTGGGGGATGATAAAAAATGCAACT
CACTGGGGGATGACAAAAATGCAACT
AAAGGGGGGATGATAAAAAATGCAACT
CACTGGGGGATGATAAAAAATGCAACT
AACTGGGCATAAATGAAAAATGCAACT
TTCTGGGCCAGACAATGGGGCAGTGT
TTCTGGGCCAGACAATGGGGCAGTGT
TTCTGGGCCAGACAATGGGGCAGTGT
TTCCGGTCCAGATAAATGGAGCAGTGT
TTCAGGTCCAGATAAATGGAGCAGTGT
TTCTGGTCCAGATGATGGAGCAGTGT
TTCTGGTCCAGATAAATGGAGCAGTGT
TTCTGGTCCAGATAAATGGAGCAGTGT
TTCAGGTCCAGATAAATGGAGCAGTGT
TTCTGGTCCAGACAATGGAGCAGTGT
TTCTGGTCCAGATGATGGAGCAGTGT
TTCTGGTCCAGATGATGGAGCAGTGT
TTCTGGTCCAGATGATGGAGCAGTGT

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

GCTAGCATCATTTATGATGGGATGC
GCTAGCTTCATTTATGACGGGAGGC
GCTAGCTTCATTTATGACGGGAGGC
GCTAGCTTCATTTATGACGGGAGGC
GCTAGCTTCATTTACAGTGGGAGGC
GCTAGCTTCATTTACGATGGGAGGC
GCTGTGTTTAAAGTACAACGGCATAA
GCTGTGTTTAAAGTACAACGGCATAA
GCTGTGTTTAAAGTACAACGGCATAA
GCTGTTTTTAAAAATACAATGGTATAA
GCTGTGTTTAAAAATACAACGGTATAA
GCTGTGTTTAAAAATACAACGGCATAA
GCTGTATTTAAAAATACAACGGCATAA
GCTGTATTTAAAAATACAACGGCATAA
GCTGTATTTAAAAATACAACGGCATAA
GCTGTATTTAAAAATACAACGGATAA
GCTGTATTTAAAAATACAATGGCATAA
GCTGTACTTAAAAATACAACGGCATAA
GCTGTACTTAAAAATACAACGGCATAA

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

[illegible]

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

TAAGAAATATCCTCAGAACTCAGGAG
TCAAAAATATCCTCAGGACCCAGGAG
TCAAAAATATCCTCAGGACCCAGGAG
TCAAAAATATCCTCAGAACCCAGGAG
CAAAAGAAATCCTCAGGACCCAGGAG
CAAAAATATCCTCAGGACCCAGGAG
CAAAAATATCCTCAGGACCCAGGAG
AAAACAATATATTGAGAACACAAGAG
AAACAATATATTGAGAACACAAGAG
AAACAATATATTGAGAACACAAGAG
AAACAAAATATTGAAGAACACAAGAG
GAACACAATATTGAGAACACAAGAG
GAAGGAAATATTGAGAACACAAGAG
GAAGAAAAATATTGAGAACACAAGAG
GAAGAAAAATATTGAGAACACAAGAG
GAAGAAAAATATTGAGAACACAAGAG
AAAGCGAATATTGAGAACACAAGAG
GAAGCAAAATATTGAAGAACACAAGAG
GAAGCAAAATATTGAAGAACACAAGAG
GAAGCGAATATTGAAGAACACAAGAG

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

[illegible]

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

```

---AAGTGCATCAGGAAGGGCTGAT
---AAGTGCATCAGGAAGAGCCGAT
---AAGTGCTTCAGGAAGAGCCGAT
---AAGTGCTTCAGGAAGAGCCGAT
---GAGTGCTTCAGGAAGAGCTGAT
---AAGTGCTTCAGGAAGAGCTGAT
---AAGTGCTTCAGGAAGAGCTGAT
ACCAAGTGAT--GGACAGGCCTCAT
ACCAAGTGAT--GGACAGGCCTCAT
ACCAAGTAAT--GGACAGGCCTCAT
CCCAAGCAAT--GGGCAAGCCTCGT
CCCAAGTAAT--GGGACAGGCCTCGT
CCCGAGTGGT--GGGCCGGCCTCGT
CCCAGTAAT--GGGCTGGCCTCGT
CCCAGTGAT--GGGCCGGCCTCGT
CCCGAGTAAT--GGGCTGGCCTCGT
CCCGAGTAAT--GGGGCCGCCTCGT
CCCGAGTGAT--GGGCCGGCCTCGT
CCCGAGTGAT--GGGCCGGCCTCGT
CCCGAGTAAT--GGACCTGCCTCGT

```

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

ACTAAAAATACTATTTCATTAGAGAAG
ACTAGAATACTATTTCATTAAAGAGG
ACTAGAATACTCTTTCATTGAAGAGG
ACTAGAATACTATTTCATTGAAGAGG
ACTAAAAATACTATTTCATTGAGGAGG
ACTAAAAATACTATTTCATTGAAGAGG
ACTAAAAATACTATTTCATTGAAGAGG
AC-AAGATCTTCAGAATAGAAAAGG
AC-AAGATCTTCAGAATAGAAAAGG
AC-AAGATCTTCAGAATAGAAAAGG
AC-AAATTAATTCAAAAATGGAGAAAG
AC-AAAAATTTTAAAGATCGAGAAGG
AC-AAAAATTTTCAAGATCGAGAAGG
AC-AAAAATTTTCAAGATCGAGAAGG
AC-AAAAATTTTCAAGATCGAGAAGG
AC-AAAAATTTTCAAGATCGAGAAGG
AC-AAAAATTTTCAAGATCGAGAAGG
AC-AGAATCTTCAAAATCGAGAAGG
AC-AGAATCTTCAAAATCGAGAAGG
AC-AGAATCTTCAAAATCGAGAAGG

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
 CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
 CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
 CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
 CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
 CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
 CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
 JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
 CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
 GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
 CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
 AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
 CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
 CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
 CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
 CY020447_H1N1_A/Henry/1936_USA_6_(NA)
 CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
 CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
 CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
 CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

GGAAAAATTGTCACATTGGTCCACT
GGAAAAATTGTCCATATTAGCCCATT
GGAAAAATTGTCCATATTAGCCCATT
GGAAAAATTGTCCATATTAGCCCATT
GGAAATAGTTTCATATGACCAATT
GGAAATCGTTTCATATTAGCCCATT
GGAAAAATCGTTTCATATTAGCCAATT
GAAAGATAGTCAAAATCAGTCGAAAT
GAAAGATAGTCAAAATCAGTCGAAAT
GAAAGATAGTCAAAATCAGTCGAAAT
GGAAGATTATTAGGTCAATTGAGCT
GGAAGGTTACTAAATCAATTGAGTT
GGAAGGTTACTAAATCAATAGAGTT
GGAAGGTTACTAAATCAATAGAGTT
GGAAGGTTACTAAATCAATAGAGTT
GGAAGGTTACTAAATCAATAGAGTT
GGAAGATTACTAAATCAATAGAGTT
GGAAGATTACTAAATCAATAGAGTT
GGAAGATTACTAAATCAATAGAGTT

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

GTCAGGAAGTGTCTCAGCATGTGGAG
 GTCAGGAAGTGTCTCAGCATATAGAG
 GTCAGGAAGTGTCTCAGCATGTAGAG
 GTCAGGAAGTGTCTCAGCATGTAGAA
 GTCAGGAAGTGTCTCAGCATGTGAG
 GTCAGGAAGTGTCTCAGCATGTAGAG
 GTCAGGAAGTGTCTCAGCATGTGAG
 GAATGCCCTTAATTATCACTATGAG
 GAATGCCCTTAATTATCACTATGAG
 GAATGCCCTTAATTATCACTATGAG
 GGATGCACCTAAATTACCACTATGAG
 GAATGCACCTAAATTACCACTACGAG
 GGATGCACCTAAATTCTCACTACGAG
 GAATGCACCTAAATTCTCACTACGAG
 GGATGCACCTAAATTCTCACTACGAG
 GAATGCACCTAAATTCTCACTACGAG
 GGATGCACCTAAATTCTCATTACGAG
 GGATGCACCTAAATTCTCATTACGAG
 GGATGCACCTAAATTCTCATTACGAG

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

GAATGCTCCTGTTACCCCGGATATC
GAGTGTTCCTGTTACCCCTGATATC
GAGTGTTCCTGTTATCCTGATATC
GAGTGTTCCTGTTATCCTAGATATC
GAGTGTTCCTGCTATCCCTGATATC
GAGTGTTCCTGTTATCCTGATATC
GAGTGTTCCTGTTATCCTGATATC
GAATGCTCCTGTTATCCTGATTCTA
GAATGCTCCTGTTATCCTGATTCTA
GAATGCTCCTGTTATCCTGATTCTA
GAATGCTCCTGTTACCCCTGATACAG
GAATGTTCCCTGTTACCCCTGATACAG
GAATGTTCCCTGTTACCCCTGATACCA
GAATGTTCCCTGTTACCCCTGATACCG
GAGTGTTCCTGTTACCCCTGATACCG
GAATGTTCCCTGTTACCCCTGATACCG
GAATGTTCCCTGTTACCCAGACACTG
GAATGTTCCCTGTTACCCAGACACCG
GAATGTTCCCTGTTACCCAGACACCG
GAATGTTCCCTGTTACCCAGACACCG

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

[illegible]

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

CAATTGGAAGGGCTCCAATAGACCC
CAACTGGAAAGGCTCTAATAGGCC
CAACTGGAAAGGCTCTAATAGGCC
CAACTGGAAAGGCTCTAATAGGCC
CAACTGGAAAGGCTCCAATAGGCC
CAACTGGAAAGGCTCCAATAGGCC
CAACTGGAAAGGCTCTAATAGGCC
TAACTGGCATGGCTCGAATCGACCG
TAACTGGCATGGCTCGAATCGACCG
TAACTGGCATGGCTCGAATCGACCG
CAATTGGCATGTTTGAATCGACCA
CAATTGGCATGGTTTGAATCGACCA
CAATTGGCACGGTTTGAACCGACCA
CAATTGGCACGGTTTGAACCGACCA
CAATTGGCACGGTTTGAACCGACCA
CAATTGGCATGGTTTGAACCGACCA
CAACTGGCATGGTTTCAATCGACCT
CAATTGGCATGGTTTGAATCGACCA
CAATTGGCATGGTTTGAATCGACCT
CAATTGGCATGGTTTGAATCGACCT

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

GTGCTATATATAAAATGGG---AG
 GTTATAGACATAAAATATGGA---AG
 ATCATAGACATAAAATATGGA---AG
 GTCGTAGACATAAAATATGGA---AG
 ATCCGTAGATATAAACATAAA---GG
 ATCGTAGATATAAAATGTGAA---AG
 ATCGTAGATATAAAATGTGAA---AG
 TGGGTGTCCTTTCAACCAGAATCTGG
 TGGGTGTCCTTTCAACCAGAATCTGG
 TGGGTGTCCTTTCAACCAGAATCTGG
 TGGGTCTCTTTTCGATCAGAATCTGG
 TGGGTGTCCTTTTCGATCAAAACCTGG
 TGGGTGTCCTTTTCGATCAAAACCTGG
 TGGGTGTCCTTTTCGATCAAAACCTGG
 TGGGTGTCCTTTTCGATCAAAACCTGG
 TGGGTGTCCTTTTCGATCAAAACCTGG
 TGGGTGTCCTTTTAATCAAAACCTGG
 TGGGTGTCCTTTTAATCAAAACCTGG
 TGGGTGTCCTTTTAATCAAAACCTGG
 TGGGTGTCCTTTTAATCAAAACCTGG

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
 CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
 CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
 CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
 CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
 CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
 CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
 JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
 CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
 GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
 CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
 AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
 CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
 CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
 CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
 CY020447_H1N1_A/Henry/1936_USA_6_(NA)
 CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
 CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
 CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
 CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

ATTATAGCTTGATTCTAGTTATGT
ATTATAGCAATTGATTCAGTTATGT
ATTATAGCAATTGATTCAGTTATGT
ATTATAGCAATTGATTCAGTTATGT
ATCATAGCAATTGTTCCAGTTATGT
ATTATAGCAATTGTTCCAGTTATGT
ATTATAGCAATTGTTCCAGTTATGT
AATATCAGATAG-----GATACAT
AATATCAGATAG-----GATACAT
AATATCAGATAG-----GATACAT
ATTATCAAATAG-----GGTACAT
ATTATCAAATAG-----GGTACAT
ATTATCAAATGG-----GATACAT
ATTATCAAATAG-----GATACAT
ATTATCAAATAG-----GATACAT
ATTATCAAATAG-----GATACAT
ATTATCAAATAG-----GATACAT
ATTATCAAATAG-----GATACAT
ATTATCAAATAG-----GATACAT

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

Sequence logo for the 10bp motif. The y-axis represents information content in bits, ranging from 0 to 2. The x-axis shows positions 1 to 10. The sequence is GTGCTCAGGACTTGTGGGACACAA. The 'A' at position 3 and the 'G' at position 6 are highlighted in red, indicating they are the most conserved positions.

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

CC AAGAAATGA CGATAGCTCCAGCA
CCCAGGAACGACGACAGTCTTAGCA
CCCAGAAACGACGACAGATCTTAGCA
CCTAGAAACGACGACAGATCTTAGCA
CCCAGAAAAAACGACAGCTCCAGCA
CCCAGAAAAAACGACAGTCCAGCA
CCCAGAAAAAMCGACAGTCCAGCA
CCACGCCCTAATGATAAGACAGGCA
CCACGCCCTAATGATAAGACAGGCA
CCACGCCCTAATGATAAGACAGGCA
CCGCGTTCCTAATGATGGGAAAGGCA
CCGCGTCCCAAAAGATGGAAACAGGCA
CCGCGTCCCAAAAGATGGAAAGGCA
CCGCGTCCCAAAAGATGGAAACAGGCA
CCGCGTCCCAAAAGATGGAAACAGGCA
CCGCGTCCCAAAAGATGGAAACAGGCA
CCGCGTCCCAAAAGATGGAAAGGCA
CCGCGTCCCAAAAGATGGAAAGGCA
CCGCGTCCCAAAAGATGGAAAGGCA
CCGCGTCCCAAAAGATGGAAAGGCA

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

G C A G T A A C T G C A G G G A T C C T A A T A A
 A T A G C A A A A G C A G G G A T C C T A A C A A
 A T A G C A A T T G C A G G A A T C C T A A C A A
 A T A G C A A T T G C A G G A A T C C T A A C A A
 G T A G C A A T T G T T T G G A T C C T A A C A A
 G T A G C T A A T T G C C G G A A T C C T A A C A A
 G T A G C T A A T T G C C T G G A T C C T A A C A A
 G T T G T G G T C C A G T A T C G T C T A A T G G
 G T T G T G G T C C A G T A T C G T C T A A T G G
 G T T G T G G T C C A G T A T C G T C T A A T G G
 A T T G T G G C C C A G T A C T T T C T A A T G G
 G C T G T G G T C C A G T G C T T T C T A A T G G
 G C T G T G G T C C A G T G T A T G T T G A T G G
 G C T G T G G C C C A G T G T C T G C T G A T G G
 G C T G T G G T C C A G T G C T G T T G A T G G
 G C T G T G G T C C A G T G T A T G T T G A T G G
 G C T G T A A T C C A G T G A C T G T T G A T G G
 G C T G T G A T C C A G T A A A T G T T G A T G G
 G T T G T G A T C C A G T A A A T G T T G A T G G
 G C T G T G A T C C A G T A A C T G T T G A T G G

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

CGAGAGAGGGGGCCAGGAGTGAAA
 TGAGAGAGGGGAATCCAGGAGTGAAA
 TGAGAGAGGGGAATCCAGGAGTGAAA
 TGAGAGAGGGGAATCAAGGAGTGAAA
 TGAAGAAGGTGGTCATGGAGTGAAA
 TGAAGAAAGGGAGTCATGGAGTGAAA
 TGAGGAAGGGGGTCATGGAGTGAAA
 AGCAAA-----TGGAGTAAAA
 AGCAAA-----TGGAGTAAAA
 AGCAAA-----TGGAGTAAAA
 AGCAAA-----TGGAGTGAAG
 AGCAAA-----CGGAGTAAAG
 AGCAAA-----CGGAGTAAAG
 AGCAAA-----CGGAGTGAAG
 AGCAAA-----CGGAGTAAAG
 AGCAGACGGAGTTAAAG
 AGCAGACGGAGTAAAG
 AGCAGACGGAGTAAAG
 AGCAGACGGAGTAAAG

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

GGGCTGGGCGCTTTGACAATGGAAATG
GGCTGGGCGCTTTGACAATGGAGATG
GGCTGGGCGCTTTGACAATGGAGATG
GGCTGGGCGCTTTGACAATGGAGATG
GGCTGGGCGCTTTGATGATGGAAATG
GGCTGGGCGCTTTGACGATGGAAATG
GGCTGGGCGCTTTGATGATGGAAATG
GGATTTTTCATTCAAATACGGCAATG
GGATTTTTCATTCAAATACGGCAATG
GGATTTTTCATTCAAATACGGCAATG
GGGTTTTTCATTAGATATGGCAATG
GGATTTTTCATTAGGTATGGTAATG
GGATTTTTCATATAGGTATGGTAATG
GGATTTTTCATATAGGTATGGTAATG
GGATTTTTCATATAGGTATGGTAATG
GGATTTTTCATATAGGTATGGTAATG
GGGTTTTTCATACAAATATGGTAATG
GGGTTTTTCATACAGGTATGGTAATG
GGGTTTTTCATACAGGTATGGTAATG
GGGTTTTTCATACAGGTATGGTAATG

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

Sequence logo for the 10bp motif. The y-axis represents information content in bits (0.00 to 0.40). The x-axis shows positions 1 to 10. The logo shows a strong preference for 'A' at position 1, 'G' at position 2, 'T' at position 3, 'G' at position 4, 'G' at position 5, 'A' at position 6, 'A' at position 7, 'C' at position 8, 'A' at position 9, and 'A' at position 10.

Position	A	C	G	T
1	0.38	0.02	0.02	0.02
2	0.02	0.02	0.38	0.02
3	0.02	0.02	0.38	0.02
4	0.02	0.02	0.38	0.02
5	0.02	0.02	0.38	0.02
6	0.38	0.02	0.02	0.02
7	0.38	0.02	0.02	0.02
8	0.02	0.38	0.02	0.02
9	0.38	0.02	0.02	0.02
10	0.38	0.02	0.02	0.02

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

GAAAGATTTCGGCTCTGGTTATGAG
CAAAGATTTCACGCTCAGGTTATGAA
CAAGGATTTTACGCTCAGGTTATGAA
CAAGGATTTTACGCTCAGGTTATGAA
CGAGAAGTTCACGCTTAGGATATGAA
AGAGGAGTTTACGCTCAGGTTATGAA
CGAGAAGTTTACGCTCAGGTTATGAA
CATTAGTTCAAGAAAAGCTTTT GAG
CATTAGTTCAAGAAACGGTTTTT GAG
CATTAGTTCAAGAAACGGTTTTT GAG
TATCAGCTCTAGAAGTGGATTT GAG
TACCAGTTCCGAGAAGCGGGTTT GAG
TAACAGTTCCAGACAGGGGTTT GAG
TGACAGTTCCAGACATGGGTTT GAG
TCAAAAGTTCCAGACATGGGTTT GAG
TAACAGTTCCAGACATGGGTTT GAG
TAACAGCTTAGAAAAGGGGTTT GAG
TAACAGTTCCGAAAAGGGGTTT GAG
TAACAGCTCCGAAAAGGGATTT GAG
TAAACAGCTCCGAAAAGGGATTT GAG

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

1201

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
 CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
 CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
 CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
 CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
 CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
 CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
 JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
 CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
 GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
 CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
 AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
 CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
 CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
 CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
 CY020447_H1N1_A/Henry/1936_USA_6_(NA)
 CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
 CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
 CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
 CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

CTACGGCTAATTCCAAGTCACAAAT
 CCACACCTAATTCCAATTCGCAGGT
 CCACACCTAATTCCAATTCGCAGAT
 CCACACCTAATTCCAATTCGCAGAT
 CCAACCCCTAATTCCAATTCGCAGAT
 CCACACCTAATTCCAATTCGCAGAT
 CCAACCCCTAATTCCAATTCGCAGAT
 CTGGGACAGACAATAGCTTCTCAAT
 CTGGGACAGACAATAACTTCTCAAT
 CTGGGACAGACAATAACTTCTCAAT
 CAGAAACTGATAGTAGTTTCTCTAT
 CAGAGACTGATAGTAGTTTCTCTGT
 CAGAGACTGATAGTAGTTTCTCTGT
 CAGAGACTGATAGTAGTTTCTCTGT
 CAGAGACTGATAGTAGTTTCTCTGT
 CAGAGACTGATAGTAGTTTCTCTGT
 CAGATACCGATGATAATTTCTTAGT
 CAGATACCGATGATAATTTCTTAGT
 CCGATACCGATGATAATTTCTTAGT

1226

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
 CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
 CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
 CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
 CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
 CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
 CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
 JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
 CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
 GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
 CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
 AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
 CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
 CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
 CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
 CY020447_H1N1_A/Henry/1936_USA_6_(NA)
 CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
 CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
 CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
 CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

AAATAGGCAAGTCATAGTTGACAGT
 CAATAGACAGGTCATAGTTGACAAC
 CAATAGACAGGTCATAGTTGACAGC
 CAATAGACAGGTCATAGTTGACAGC
 AAATAGGCAAGTCATAGTTGACAGA
 AAATAGGCAAGTCATAGTTGACAGC
 AAATAGGCAAGTCATAGTTGACAGA
 AAA---GCAAGATATCGTAGGAATA
 AAA---GCAAGATATCGTAGGAATA
 AAA---GCAAGATATCGTAGGAATA
 GAA---GCAAGATATTATAGCATTA
 GAG---ACAAGATATTGTAGCAATA
 GAA---ACAAGATGTAGTGGCAGTA
 GAG---ACAAGATGTGTGGCAATG
 GAG---ACAAGATGTGTGGCAATG
 GAG---ACAAGATGTGTGGCAATG
 GAA---ACAGGATGTGTGGCAATA
 GAA---ACAGGATGTAGTGGCAATG
 GAA---ACAGGATGTAGTGGCAATG
 GAA---ACAGGATGTAGTGGCAATG

1251

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
 CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
 CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
 CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
 CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
 CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
 CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
 JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
 CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
 GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
 CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
 AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
 CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
 CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
 CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
 CY020447_H1N1_A/Henry/1936_USA_6_(NA)
 CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
 CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
 CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
 CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

GATAACTGGTCTGGGTATTCTGGTA
 AATAATTGGTCTGGGTACTCTGGTA
 AATAATTGGTCAGGTTACTCTGGTA
 GATAACTGGTCAGGTTACTCTGGTA
 GGTAATAGGTCGGGTTATTCTGGTA
 GGTAATAGGTCGGGTTATTCTGGTA
 GGTAATAGGTCGGGTTATTCTGGTA
 AATGAGTGGTCAGGATATAGCGGGA
 AATGAGTGGTCAGGATATAGCGGGA
 ACTGATTGGTCGGGATACAGTGGAA
 ACTGATTGGTCGGGGTACAGCGGGA
 ACCGATTGGTCAGGGTACAGCGGAA
 ACTGATCGGTCAGGGTACAGCGGAA
 ACTGATTGGTCAGGGTACAGCGGAA
 ACTGATTGGTCAGGGTATAGCGGAA
 ACTGATTGGTCAGGGTATAGCGGAA
 ACTGATTGGTCAGGGTATAGCGGAA
 ACTGATTGGTCAGGGTATAGCGGAA

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

Sequence logo for the 10bp motif. The y-axis represents information content in bits (0.00 to 0.30). The x-axis shows positions 1 to 10. The logo shows a strong preference for T at position 1, G at position 2, T at position 3, C at position 4, A at position 5, A at position 6, C at position 7, T at position 8, C at position 9, and A at position 10. The background is color-coded by base: T (blue), G (green), C (yellow), A (red).

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

AGGAAAA CCGCAT CAACAG GGTGT
 GGGAAAA AGCTGC ATCAAT AGGTGC
 GGGAAAA AGCTGC ATCAAT AGGTGC
 GGGAAAA AGCTGC ATCAAT AGGTGC
 AGGAAAA GCTGC ATCAAT CCGTGC
 GGGAAAA AGCTGC ATCAAT CCGTGC
 AGGAAAA GCTGC ATCAAT CCGTGC
 AGGGG CTGGACTG TATAAG ACCTTGC
 AGGGG CTGGATTG TATAAG ACCTTGC
 AGGGG CTGGATTG TATAAG ACCTTGC
 AGGAAT GAACCTG ATAAGG CCCTTGC
 AGGGG CTGGACTG ATGAGG CCCTTGC
 AGGGG CTGGACTG ATGAGG CCCTTGC
 AGGGG CTAGACTG TATGAG GCCCTTGC
 AGGGG CTAGACTG TATGAG GCCCTTGC
 AGGGG CTAGACTG TATGAG GCCCTTGC
 AGGAT TGGACTG TATGAG CCCTTGC
 AGGAT TGGACTG TATGAG CCCTTGC
 AGGAT TGGACTG TATGAG CCCTTGC

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

[illegible]

1351

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
 CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
 CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
 CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
 CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
 CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
 CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
 JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
 CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
 GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
 CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
 AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
 CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
 CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
 CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
 CY020447_H1N1_A/Henry/1936_USA_6_(NA)
 CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
 CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
 CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
 CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

GACCACAGGAGAGCAGAGTATGGTGG
 GGCCACAGGAGACTAGAGTATGGTGG
 GGCAACAGGAGACTAGAGTATGGTGG
 GGAAACAGGAGACTAGAGTGTGGTGG
 GAAAAGAGGAAATGAAGTCTTGTGG
 GGGAAACAGGAAACTAGAGTCTGGTGG
 GGAAACAGGAAACTGAAGTCTGGTGG
 GACCCAAAGAGAAC---ACAATCTG
 GACCCAAAGAGAAC---ACAATCTG
 GACCCAAAGAGAAC---ACAATCTG
 AACCCAAAGGAGAGC---ACAATCTG
 AACCTAAAGAGAAT---ACAATCTG
 GACCTAAAGAAAAT---ACAATCTG
 GACCTGAGGAGGAA---ACAATCTG
 AACCTAAAGAGAAA---ACAATCTG
 GACCTAAAGAAAAC---ACAATCTG
 TGCCTAGAGAAAAATACAACAATCTG
 GACCCAGAGAAAAAACACAATCTG
 GACCCAGAGAAAAAACACAATCTG
 GACCTAGAGAAAGGACAACAATCTG

1376

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
 CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
 CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
 CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
 CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
 CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
 CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
 JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
 CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
 GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
 CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
 AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
 CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
 CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
 CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
 CY020447_H1N1_A/Henry/1936_USA_6_(NA)
 CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
 CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
 CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
 CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

GACTTCAAATAGCATCATTGTATT
 GACCTCAAACAGTATTGTTGTGTTT
 GACCTCAAACAGTATTGTTGTGTTT
 GACCTCAAACAGTATTGTTGTGTTT
 GACCTCAAACAGTATTGTTGTGTTT
 GACCTCAAACAGTATTGTTGTGTTT
 GACCTCAAACAGTATTGTTGTGTTT
 GACTAGCGGGAGCAGCATATCCTTT
 GACTAGCGGGAGCAGCATCTCCTTT
 GACTAGCGGGAGCAGCATATCCTTT
 GACTAGTGGAGCAGCATTTCTTTT
 GACTAGTGGGAGCAGCATTTCTTTT
 GACCCAGTGGGAGCAGCATTTCTTTT
 GACTAGTGGGAGCATCATTTCTTTT
 GACTAGTGGGAGCAGCATTTCTTTT
 GACTAGTGGGAGCAGCATTTCTTTT
 GACTAGTGGGAGCAGCATTTCTTTT
 GACTAGTGGGAGCAGCATTTCTTTT
 GACTAGTGGGAGCAGCATTTCTTTT
 GACTAGTGGGAGCAGCATTTCTTTT
 GACTAGTGGTACAGCATTTCTTTT

1401

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
 CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
 CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
 CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
 CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
 CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
 CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
 JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
 CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
 GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
 CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
 AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
 CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
 CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
 CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
 CY020447_H1N1_A/Henry/1936_USA_6_(NA)
 CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
 CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
 CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
 CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

TGTGGAACTTCAGGTACCTATGGAA
 TGTGGCACTTCAGGTACTTATGGAA
 TGTGGCACTTCAGGTACTTATGGAA
 TGTGGCACTTCAGGTACCTATGGAA
 TGTGGCACCTCAGGTACATATGGAA
 TGTGGCACCTCAGGTACATATGGAA
 TGTGGCACCTCAGGTACATATGGAA
 TGTGGTGTAAACAGTGACACTGTGG
 TGTGGTGTAAACAGTGACACTGTGG
 TGTGGCGTGAACAGTGGCACTGCAA
 TGTGGCGTAAATAGTGATACTGTAG
 TGTGGTGTGAATAGTGATACTGTAG
 TGTGGCGTGAATAGTGATACTGTAG
 TGTGGCGTGAATAGTGATACTGTAG
 TGTGGCGTGAATAGTGATACTGTAG
 TGTGGCGTGAATAGTGATACTGTAA
 TGTGGCGTGAATAGTGATACTGTAA
 TGTGGCGTGAATAGTGATACTGTAA
 TGTGGCGTGAATAGTGATACTGTAA

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

CAGGCTCATGGCCTGATGGAGCGAA
CAGGCTCATGGCCTGATGGGGCGAA
CAGGCTCATGGCCTGATGGGGCGAA
CAGGCTCATGGCCTGATGGGGCGAA
CAGGCTCATGGCCTGATGGGGCGA
CAGGCTCATGGCCTGATGGGGCGA
CAGGCTCATGGCCTGATGGGGCGA
GTTGGTCTTGGCCAGACGGTGCTGA
GTTGGTCTTGGCCAGACGGTGCTGA
GTTGGTCTTGGCCAGACGGTGCTGA
GTTGGTCTTGGCCAGACGGTGCTGA
GTTGGTCTTGGCCAGACGGTGCTGA
ATTGGTCTTGGCCAGACGGTGCCGA
ATTGGTCTTGGCCAGACGGTGCTGA
ATTGGTCTTGGCCAGACGGTGCTGA
ATTGGTCTTGGCCAGACGGTGCTGA
ATTGGTCTTGGCCAGACGGTGCCGA
ATTGGTCTTGGCCAGACGGTGCCGA
ATTGGTCTTGGCCAGACGGTGCCGA
ATTGGTCTTGGCCAGACGGTGCCGA

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

TATCAATTTTCATGCTATATAAGCT
CATCAATTTTCATGCCATATAAGCT
CATCAATTTTCATGCCATATAAGCT
CATCAATTTTCATGCCATATAAGCT
CATCAATTCATGCCATATAAGCT
CATCAATCTCATGCCATATAAGCT
CATCAATCTCATGCCATATAAGCT
GTTGCCATTTCAC-CATTGACAAG--
GTTGCCATTTCAC-CATTGACAAG--
GTTGCCATTTCAC-CATTGACAAG--
TCTGCCATTTCAC-CATTGACAAG--
GTTGCCATTTCAC-CATTGACAAG--
GTTGCCATTTCAC-CATTGACAAG--
GTTGCCATTTCAC-CATTGACAAG--
GTTGCCATTTCAC-CATTGACAAG--
GTTGCCATTTCAC-CATTGACAAG--
GTTGCCATTTCAC-AAATTGACAAG--
GTTGCCATTTCAC-CATTGACAAG--
GTTGCCATTTCAC-CATTGACAAG--

AJ404629_H9N2_A/Hong_Kong/1073/99_Hong_Kong_6_(NA)
CY087802_H2N2_A/Japan/305-MA12/1957_Japan_6_(NA)
CY032263_H2N2_A/Cottbus/1/1964_Germany_6_(NA)
CY080525_H3N2_A/Hong_Kong/1-10-MA21-1/1968_Hong_Kong_6_(NA)
CY118916_H3N2_A/Malaysia/1665090/2006_Malaysia_6_(NA)
CY113367_H3N2_A/Shanghai/11/1987_China_6_(NA)
CY112839_H3N2_A/Hong_Kong/1/1997_Hong_Kong_6_(NA)
JX046928_H1N1_A/Moscow/IIV-45/2012_Russia_6_(NA)
CY049989_H1N1_A/Mexico_City/WR1087T/2009_Mexico_6_(NA)
GQ132138.1|_H1N1_A/Mexico/InDRE4114/2009
CY021959_H1N1_A/New_Jersey/1976_USA_6_(NA)
AF250356_H1N1_A/Brevig_Mission/1/1918_USA_6_(NA)
CY013273_H1N1_A/Hickox/1940_USA_6_(NA)
CY009606_H1N1_A/Wilson-Smith/1933_United_Kingdom_6_(NA)
CY045774_H1N1_A/Melbourne/1/1946_Australia_6_(NA)
CY020447_H1N1_A/Henry/1936_USA_6_(NA)
CY006669_H1N1_A/New_York/493/2003_USA_6_(NA)
CY009342_H1N1_A/Malaysia/1954_Malaysia_6_(NA)
CY010374_H1N1_A/USSR/90/1977_Russia_6_(NA)
CY021039_H1N1_A/Christ's_Hospital/157/1982_United_Kingdom_6_(NA)

Sequence logo visualization showing the probability of nucleotides (A, C, G, T) at each position. The y-axis represents the probability (0.0 to 0.4), and the x-axis represents the position (1 to 8). The logo highlights the conserved regions and the specific nucleotide preferences at each position.

Position	A	C	G	T
1	0.00	0.00	0.00	0.40
2	0.00	0.00	0.00	0.40
3	0.00	0.00	0.00	0.40
4	0.00	0.00	0.00	0.40
5	0.40	0.00	0.00	0.00
6	0.00	0.00	0.40	0.00
7	0.00	0.20	0.20	0.20
8	0.00	0.20	0.20	0.20