

A

First candidate

	Sequence	Lenght	Start nt	Finish nt
Forward primer	TTTTCGA GGACAAA TTCTCACA TTT	24	473	497
Reverse primer	AGGGTTT GAACCAG GATTTCTG	21	540	561
Probe	TATGTGTT AGATGTA CTAATACC CT	25	502	527

1 actgtatcgc actatgtgtc atttgataac tcaaaaaatc ccttaccctt gttttaaatc
61 gaattgcaaa tggagggaatt tcaagtatat ttagaactag atagatctcc gcaactgaac
121 ttctctatacc cacttctttt tcgggagtat atttatgcac ttgctcatga tcatggttta
181 aatagatcga tgatttcatt ggaaaaatagg gggtatgaca ataaatttag ttactaagt
241 gtgaaacgtt taattattcg aatgtatcaa cagattcatt tgagtatttc tgctaattat
301 tctaagcaaa atcaattttt tgggcacaa aataatttgt attctcaaat gatatacagag
361 ggattttcgag tcattatgga aattccattt tccttaagat tcgtatcttt cttagaagg
421 aaagaaatag caaaatctca aaatttccaa tcaattcatt caatatttcc ttcttcgag
481 gacaaattct cacattttaa ttatgtgtta gatgtactaa taccctacc catttgcctc
541 gaaatcctgg ttcaaacctt tcgctactgg gtaaaagacg cctctctttt acatttatta
601 cggttctttt tccatgagta tttaatttgg aatggcttta ttactccaaa aaatcttatt
661 actatttttt caaaaagtaa tccaagatta ttctgtttcc tatataattc tcactctgt
721 gaatatgaat ctatcttctt ttttatccgt aaccaatcgt ctcatattag atcaacatct
781 tctggagctc ttcttgagcg aacatattta tatggaaaag tagaattctt tggcgaagcc
841 gttgctaagt attttcagga catcttatgt ttgttcaagg atcctttctt gcattatgtt
901 agatatcaag gaaaatctat tctggtctca aaagatagcg ctcttctgat gaataaatgg
961 aaatattact ttgtcaattt atggcaatgg cattttcatg ttgtgttcga accaggaagg
1021 gtccatataa atcacctatc caaacattct atcaactttc tgggctatct ttccaatgtg
1081 caactaaatc cttgggtggg acggactcaa atgttagaaa attcatttct aatagataat
1141 gttatgaaga agttcgatac aaacgttccc gttattcttc ttacttgagc attgactaag
1201 ggggggtttt gtaacacatt agggcatccc attagtaagc cgacctgggc cgattcctcc
1261 gattctcata ttatcgagcg atttgcgtct atatgcagaa atcttttcta ttatcacagt
1321 ggatcctcaa aaaaaagag ttgttatcga ataaaatata tccttcgctt tcttgtgttt
1381 aaaagtttgg ttctgtaaca caaaagtact gtacgcgtct ttttgaagg attaggttcg
1441 gaattctcgg aagaattcct tacggaggaa gagcacgttc tttctttaat ctttcaggaa
1501 gcttcgttta cttcgcggag gttatataga gggcggattt gttattctga tattatttgt
1561 ataatgatac tgggtaatca ggatcatgaa tgattgggta tgagaccgag taagttttat
1621 aaattttctt aaatgggtga tagataaaaa aaattcattt atttcgatta aatgttcagt
1681 caataaaaaa aataaagggt gatgaactga gtattccgct tttttagtg atttttaggg
1741 aagaaacaga gttttcgtat ttatacatag ggaaagcgtg gtgcaatgaa aatgcaagc
1801 acgg

B

Second candidate

	Sequence	Lenght	Start nt	Finish nt
Forward primer	TTTTCGA GGACAAA TTCTCACA TTT	24	473	497
Reverse primer	CGAAGGG TTTGAAC CAGGATT	21	543	564
Probe	TATGTGTT AGATGTA CTAATACC CT	25	509	534

1 actgtatcgc actatgtgtc atttgataac tcaaaaaatc ccttaccctt gttttaaatc
61 gaattgcaaa tggagggaatt tcaagtatat ttagaactag atagatctcc gcaactgaac
121 ttctctatacc cacttctttt tcgggagtat atttatgcac ttgctcatga tcatggttta
181 aatagatcga tgatttcatt ggaaaaatagg gggtatgaca ataaatttag ttactaagt
241 gtgaaacgtt taattattcg aatgtatcaa cagattcatt tgagtatttc tgctaattat
301 tctaagcaaa atcaattttt tgggcacaa aataatttgt attctcaaat gatatacagag
361 ggattttcgag tcattatgga aattccattt tccttaagat tcgtatcttt cttagaagg
421 aaagaaatag caaaatctca aaatttccaa tcaattcatt caatatttcc ttcttcgag
481 gacaaattct cacattttaa ttatgtgtta gatgtactaa taccctacc catttgcctc
541 gaaatcctgg ttcaaacctt tcgctactgg gtaaaagacg cctctctttt acatttatta
601 cggttctttt tccatgagta tttaatttgg aatggcttta ttactccaaa aaatcttatt
661 actatttttt caaaaagtaa tccaagatta ttctgtttcc tatataattc tcactctgt
721 gaatatgaat ctatcttctt ttttatccgt aaccaatcgt ctcatattag atcaacatct
781 tctggagctc ttcttgagcg aacatattta tatggaaaag tagaattctt tggcgaagcc
841 gttgctaagt attttcagga catcttatgt ttgttcaagg atcctttctt gcattatgtt
901 agatatcaag gaaaatctat tctggtctca aaagatagcg ctcttctgat gaataaatgg
961 aaatattact ttgtcaattt atggcaatgg cattttcatg ttgtgttcga accaggaagg
1021 gtccatataa atcacctatc caaacattct atcaactttc tgggctatct ttccaatgtg
1081 caactaaatc cttgggtggg acggactcaa atgttagaaa attcatttct aatagataat
1141 gttatgaaga agttcgatac aaacgttccc gttattcttc ttacttgagc attgactaag
1201 ggggggtttt gtaacacatt agggcatccc attagtaagc cgacctgggc cgattcctcc
1261 gattctcata ttatcgagcg atttgcgtct atatgcagaa atcttttcta ttatcacagt
1321 ggatcctcaa aaaaaagag ttgttatcga ataaaatata tccttcgctt tcttgtgttt
1381 aaaagtttgg ttctgtaaca caaaagtact gtacgcgtct ttttgaagg attaggttcg
1441 gaattctcgg aagaattcct tacggaggaa gagcacgttc tttctttaat ctttcaggaa
1501 gcttcgttta cttcgcggag gttatataga gggcggattt gttattctga tattatttgt
1561 ataatgatac tgggtaatca ggatcatgaa tgattgggta tgagaccgag taagttttat
1621 aaattttctt aaatgggtga tagataaaaa aaattcattt atttcgatta aatgttcagt
1681 caataaaaaa aataaagggt gatgaactga gtattccgct tttttagtg atttttaggg
1741 aagaaacaga gttttcgtat ttatacatag ggaaagcgtg gtgcaatgaa aatgcaagc
1801 acgg

C

Third candidate

	Sequence	Lenght	Start nt	Finish nt
Forward primer	TGTGGTC GCAACCA GGAA	18	1010	1018
Reverse primer	CCCAAGG ATTAGTT GCACATT G	23	1074	1097
Probe	TCCATATA AATCACCT ATCCAAA CA	25	1022	1047

1 actgtatcgc actatgtgtc atttgataac tcaaaaaatc ccttaccctt gttttaaatc
61 gaattgcaaa tggagggaatt tcaagtatat ttagaactag atagatctcc gcaactgaac
121 ttctctatacc cacttctttt tcgggagtat atttatgcac ttgctcatga tcatggttta
181 aatagatcga tgatttcatt ggaaaaatagg gggtatgaca ataaatttag ttactaagt
241 gtgaaacgtt taattattcg aatgtatcaa cagattcatt tgagtatttc tgctaattat
301 tctaagcaaa atcaattttt tgggcacaa aataatttgt attctcaaat gatatacagag
361 ggattttcgag tcattatgga aattccattt tccttaagat tcgtatcttt cttagaagg
421 aaagaaatag caaaatctca aaatttccaa tcaattcatt caatatttcc ttcttcgag
481 gacaaattct cacattttaa ttatgtgtta gatgtactaa taccctacc catttgcctc
541 gaaatcctgg ttcaaacctt tcgctactgg gtaaaagacg cctctctttt acatttatta
601 cggttctttt tccatgagta tttaatttgg aatggcttta ttactccaaa aaatcttatt
661 actatttttt caaaaagtaa tccaagatta ttctgtttcc tatataattc tcactctgt
721 gaatatgaat ctatcttctt ttttatccgt aaccaatcgt ctcatattag atcaacatct
781 tctggagctc ttcttgagcg aacatattta tatggaaaag tagaattctt tggcgaagcc
841 gttgctaagt attttcagga catcttatgt ttgttcaagg atcctttctt gcattatgtt
901 agatatcaag gaaaatctat tctggtctca aaagatagcg ctcttctgat gaataaatgg
961 aaatattact ttgtcaattt atggcaatgg cattttcatg ttgtgttcga accaggaagg
1021 gtccatataa atcacctatc caaacattct atcaactttc tgggctatct ttccaatgtg
1081 caactaaatc cttgggtggg acggactcaa atgttagaaa attcatttct aatagataat
1141 gttatgaaga agttcgatac aaacgttccc gttattcttc ttacttgagc attgactaag
1201 ggggggtttt gtaacacatt agggcatccc attagtaagc cgacctgggc cgattcctcc
1261 gattctcata ttatcgagcg atttgcgtct atatgcagaa atcttttcta ttatcacagt
1321 ggatcctcaa aaaaaagag ttgttatcga ataaaatata tccttcgctt tcttgtgttt
1381 aaaagtttgg ttctgtaaca caaaagtact gtacgcgtct ttttgaagg attaggttcg
1441 gaattctcgg aagaattcct tacggaggaa gagcacgttc tttctttaat ctttcaggaa
1501 gcttcgttta cttcgcggag gttatataga gggcggattt gttattctga tattatttgt
1561 ataatgatac tgggtaatca ggatcatgaa tgattgggta tgagaccgag taagttttat
1621 aaattttctt aaatgggtga tagataaaaa aaattcattt atttcgatta aatgttcagt
1681 caataaaaaa aataaagggt gatgaactga gtattccgct tttttagtg atttttaggg
1741 aagaaacaga gttttcgtat ttatacatag ggaaagcgtg gtgcaatgaa aatgcaagc
1801 acgg

Identification of species-specific *matk* region

Figure S1. Three candidates amplicons for *Pgh matk* detection. The forward and reverse primers are coloured in blue, while the FAM-TAMRA probe is marked in red. The chosen amplicon is described in figure S1 C.