

Table S3. Oligonucleotides used in this study

Primer	Sequence (5' -> 3')
Gene Deletion Primers	
ABUW_3260 P1	ATTTATGCGGCCGCTGCATATTGAATATAGCCTGGCTA
ABUW_3260 P2	TAAGTCGTATATTATGTAATTAATTGATTCTTAAAAGAAGATATGGTAGTCCTTTTTCAA
ABUW_3260 P3	TTGAAAAAGGACTACCATATCTTCTTTTAAAGAATCAATTAATTACATAATATACGACTTA
ABUW_3260 P4	ATTTATGCGGCCGCGCATCGCCAACCTTGATACAT
ABUW_3261 P1	ATTTATGCGGCCGCCATCCTCTATGATGGATAAAGTGATCTTG
ABUW_3261 P2	TCATATACACATCCAGATTAGCAATAAAGTATAGTGCCATCTCAGACTCAAGAGTCCTTA
ABUW_3261 P3	TAAGGACTCTTGAGTCTGAGATGGCACTATACTTTATTGCTAATCTGGATGTGTATATGA
ABUW_3261 P4	ATTTATGCGGCCGCGCTGTCTGGCACCTTCTG
ABUW_2544 P1	ATTTATGCGGCCGCGACAGCCTAAACTTGTCTTATCG
ABUW_2544 P2	AATTTTGGGTTGTTTTATACAGCCCAATTTTTTATGAGCTAGAGCGGACAAAGTTATAAC
ABUW_2544 P3	GTTATAACTTTGTCCGCTCTAGCTCATAAAAAATTGGGCTGTATAAAACAACCCAAAATT
ABUW_2544 P4	ATTTATGCGGCCGCGTCAAGGCTTTGCTTTTGGTGG
ABUW_2520 P1	ATTTATGCGGCCGCGATACAAGAATGGGAGGTATGTTTGGATC
ABUW_2520 P2	TTTACATATAAGCCGTATAGAAGAACAGGCTCAAGTTTGTATTGCTGAGTTTTAAGTA
ABUW_2520 P3	TACTTAAACTCAGCAATAACAACTTGAGCCTGTTCTTCTATGACGGCTTATATGTAAA
ABUW_2520 P4	ATTTATGCGGCCGCGTACCAAAGATGACGACCAAC
ABUW_2370 P1	ATTTATGCGGCCGCGCATGGTCGCCAGTAAAACGT
ABUW_2370 P2	CTAAATTTTAAAGACGGAAATCTAGGAAGAATCTTCAACAAAATATATTCGTTATTGCAA
ABUW_2370 P3	TTGCAATAACGAATATATTTTGTGAAGATTCTTCTAGATTTCCGCTCTTAAAATTTAG
ABUW_2370 P4	ATTTATGCGGCCGCGCTACAGCTAAAGCCAACCTCAAAGTT
ABUW_2236 P1	ATTTATGCGGCCGCGCACAAAGTCTGGTGTAAGTTTCTT
ABUW_2236 P2	CACATTAGCTTTTAGCATCAAGAGTTACACTCTTTTATCAATTTCCCTAGACTGAAATGT
ABUW_2236 P3	ACATTTAGCTTAGGGAAATTTGATAAAAGAGTGTAACCTTGTATGCTAAAAGCTAATGTG
ABUW_2236 P4	ATTTATGCGGCCGCGGAAGTCTGTAAAGTGAGGAACACTACTG
ABUW_2196 P1	ATTTATGCGGCCGCGAGACTAATCCCGTAAAATGCT
ABUW_2196 P2	GCTTCGGCGCTTTTTTAGTTTACGTGATCAATCATTATTTTAAATAA
ABUW_2196 P3	TTTATTAATAATGATTGATGATCACGTAAACTAAAAAGCGCCGAAGC
ABUW_2196 P4	ATTTATGCGGCCGCGGACTGTCATTTGCTCAAGCAG
ABUW_2074 P1	ATTTATGCGGCCGCGTCAAAACACCAAGGCATTAATTGAT
ABUW_2074 P2	CCTTTATTTTATAACAGTTTAAAAGATTTCTTACTGAACCTTAATGTCTAGAAATATAG
ABUW_2074 P3	CTATATTTCTAGACATTAAGGTTAGTAAGAAATCTTTTAACTGTTATAAAAAATAAAGG
ABUW_2074 P4	ATTTATGCGGCCGCGCTTAAAGTGGTCCAATTTTAGGTATT
ABUW_3741 P1	ATTTATGCGGCCGCGCAATCTTTTCCCGACTTTAGT
ABUW_3741 P2	ATTTAACGAGCTGTGCGGCACAGACATAACCTCAAATTTTTAATGGAATATTAGC
ABUW_3741 P3	GCTAATATTCCATTAATAAATTTGAGGTTATGTCTGTGCCGCACAGCTCGTTAAAT
ABUW_3741 P4	ATTTATGCGGCCGCGAAGCAAAGCATCGTTTGGTAAAC
ABUW_1645 P1	ATTTATGCGGCCGCGTAACCAAACGAGCCCATACG
ABUW_1645 P2	CCATTATCGGGGCTTTTATTTTAAATAGTTATACCGCTTAAAATAATTTTTTGTG
ABUW_1645 P3	CAACAAAAAATTTTAAAGCGGTATAACTATTAATAAATAAAGCCCCGATAATGG
ABUW_1645 P4	ATTTATGCGGCCGCGAGCTCATTTATTTACCTGAACTTACCA
ABUW_1672 P1	ATTTATGCGGCCGCGCTTTCTTTCTCTGAAACAGCAGCT
ABUW_1672 P2	TTTAGGTTCTGCATCTAAATTGAAATGATTCTGTCAAAAAAATTGAAAGAACCTGATTGG
ABUW_1672 P3	CCAATCAGGTTCTTTCAATTTTTTGTGACAGAATCATTTCAATTTAGATGCAGAACCTAAA
ABUW_1672 P4	ATTTATGCGGCCGCGCTGGTCTAACAATCGCTTCT
ABUW_1692 P1	ATTTATGCGGCCGCGATCATCTGCTGCTTCTGAGGTT
ABUW_1692 P2	TTTTAGTCTAGTATTTCAATGTTATTAACGATTTCCCGTAGTAAATCTTTTGAAT
ABUW_1692 P3	ATTTCAAAGATTTACTACGGGGAAATCGTTTAAATAACATTGAAATACTAGACTAAAA
ABUW_1692 P4	ATTTATGCGGCCGCGGTAATACGCCACTGGTTCC
ABUW_1755 P1	ATTTATGCGGCCGCGCATATCAGCATGCAGGAAAAATATC
ABUW_1755 P2	ACGAGAGTTTTTAAATTTAGCTAAATTTTTTTCGAATTTCCATCCATTTTTTAAATTT
ABUW_1755 P3	AAAATTAATAAATATGGATGAAATTCGAAAAATTTTAGCTAAAATTAATAAACTCTCGT
ABUW_1755 P4	ATTTATGCGGCCGCGTACATAGGATACGTATTGGCAAACAT
ABUW_1849 P1	ATTTATGCGGCCGCGAGCAGCCATGTTTCTTAAAGTATCCATT
ABUW_1849 P2	TACGATAGAAGCTTAGTAGATCAATTTGCTGATGCATTATTTAATAAAAAATCATTTTCATTC
ABUW_1849 P3	GAATGAAATGATTTTATTAATAATGCATCAGCAAATTGATCTACTAAGCTTCTATCGTA
ABUW_1849 P4	ATTTATGCGGCCGCGCAATGCCAAAATTAATTCTGCCT
ABUW_1966 P1	ATTTATGCGGCCGCGTCTAAGGCTTGAGCAACAGGT
ABUW_1966 P2	TCCAACCATAAGTCTTATGAGCAGTATTTATAAGTATTCAATATAAGTGCTATCTGATTA

ABUW_1966 P3 TAATCAGATAGCACTTATATTGAATACTTATAAATACTGCTCATAAGACTTATGGTTGGA
 ABUW_1966 P4 ATTTATGCGGCCGCGTGAATCTAAACCTGTCCAGAAATAATCC
 ABUW_3833 P1 ATTTATGCGGCCGCGTCCAGATGTAATCGTACGTGTACT
 ABUW_3833 P2 ATTTGATCCGGTTTTTATGAAGATTTTTAAATGCTTAAAAATCTATACGTAAATATAAG
 ABUW_3833 P3 CTTATATTTAACGTATAGATTTTTAAGCATTAAAAATCTTCATAAAAAACCGGATCAAAT
 ABUW_3833 P4 ATTTATGCGGCCGCGTGTGACGCTGCAATAACCAAA
 ABUW_1763 P1 ATTTATGCGGCCGCGAGCTTATTAAGTTGTGCCGATATGG
 ABUW_1763 P2 TAGCTGGGTTTTTATATAAAGGTTTAGATATATTGCTCCTTATTGTCTTGTGA
 ABUW_1763 P3 TCACAAGACAATAAGGAGCAATATATCTAAACCTTTATATAAAAAACCCAGCTA
 ABUW_1763 P4 ATTTATGCGGCCGCGAGATAAAGAGCTACCTAATCAGACGAT
 ABUW_3161 P1 ATTTATGCGGCCGCGTTCGCCTAGTTGTTCCCTCAAGA
 ABUW_3161 P2 GCGATGGCATTAGAAAAAACAAGCTGTTTTAAAAAGCCTTAACGTTTTAAAAGTATTCATT
 ABUW_3161 P3 AATGAATACTTTTAAACGTTAAGGCTTTTTAAACAGCTTGATTTTCTAATGCCATCGC
 ABUW_3161 P4 ATTTATGCGGCCGCGAGTTTTAGGCGATGCTGGTG
 ABUW_3180 P1 ATTTATGCGGCCGCGCTGTATGATTTGTGCGGGAGATAGCA
 ABUW_3180 P2 TCAGTTATAAATGAACCAATAAAAAAGCACCAACAACAAGAATTACCAGCCCCGCATA
 ABUW_3180 P3 TATGCGGGGCTGGTAATTCTTGTGTTGGTGCTTTTTTATTGGTTCATTTATAACTGA
 ABUW_3180 P4 ATTTATGCGGCCGCGTCCAGTATTAGCGCACTCCA
 ABUW_2590 P1 GTTGGTTCGAGCTGAATATGAAGTG
 ABUW_2590 P2 CATCGATATTGATGCTCTCTTTTTTAAATAATGCCTTGTAGCTATAAAAAATCATAGTCAC
 ABUW_2590 P3 GTGACTATGATTTTTATAGCTACAAGGCATTATTTAAAAAGAGAGCATCAATATCGATG
 ABUW_2590 P4 ACTTCAACAAGCAGAAGCCGAA
 ABUW_3122 P1 CTACCTGTAAGTAGGGAAAAGCATGTG
 ABUW_3122 P2 TCGATTTCGATAACACGATTAATTTAGACATATTTGCCTGCCCATATTTTTTGTATC
 ABUW_3122 P3 GATCAAAAAATATGGGCAGGCAATATGTCTAAATTAATCGTGTATCGAATCGA
 ABUW_3122 P4 CTGTGTGCAAGCAACAATCGA
 ABUW_1595 P1 TCTACACGTAACCTCCCTAACCGTT
 ABUW_1595 P2 TGAGTATGATCAGGCTTTCGTTGAATCTACGGATCTGAACCACGTTATATTGAACATA
 ABUW_1595 P3 TATGTTCAATATAACGTGGTTCAGATCCGTAGATTCAACGAAAGCCTGATCATACTCA
 ABUW_1595 P4 TACAGTACCTGAAGCAGGGCATT
 ABUW_1648 P1 CCAGAAGCGCCACCACCATA
 ABUW_1648 P2 AAATAAAATAGATAGCACGCTAACAGTTGTTTCTAGCCAAGGATAGTTGCTTAACTCAGC
 ABUW_1648 P3 GCTGAGTTAAGCAACTATCCTTGGCTAGAAACAACCTGTTAGCGTGCTATCTATTTTTATT
 ABUW_1648 P4 ACCTTCTCGGCAATTATTAGAAATTTTGGCAT
 ABUW_1804 P1 CCAATCTGGATGACGAAAGATTGTTT
 ABUW_1804 P2 GCTTTTACAGCGGCTTTTTTAAATTTCTGGTTCTGTTTTCTTATATGAAACAA
 ABUW_1804 P3 TTGTTTCATATAAGAAAACGAACCAGAAAATAAAAAGCCGCTGTAAAAGC
 ABUW_1804 P4 CGCCTAGCTTGTATGATGCTGTGTTTAA

Complementation Primers

gigB Fwd ATATTAACTAGTCAAGCGTACATTTTTTAGGCTTTTTGGCTA
gigB Rev ATTATTACTAGTTTTTCCCCTTTTCGCTAAGCGTGAT
gigC Fwd ATAAATGGTACCTACCTTTAAACCAATACGCGCAA
gigC Rev ATAATTGGTACCTTAAAGCCTGATCTTCATCGCAA
gigD Fwd ATATTAGGTACCCCTTCTGGCAATGCAAATTCA
gigD Rev ATTTTAGGTACCCTACAGCGGCTTTTGTATAATTTTCTGTAA
ptk Fwd GCTCGTAAGCTAAATGCTGAACATAT
ptk Rev TTAGTCTTCTTTTTGTGCCTTATAGG
rseP Fwd ATTATTGGTACCTAGACAAGCAATGCGTGCG
rseP Rev ATTATTGGTACCTTACAACGCATAAAGTCATTAATAAAGCTAAA
typA Fwd ATTATTGGTACCGCCATAAACGAGGTCAA
typA Rev ATTATTGGTACCTTATTTATCACGGTTACGTTTACGTTTCG
uspA Fwd ATTATTGGTACCGGATACAACATAGGGCAAGGTTT
uspA Rev AATTTTGGTACCTTATTCAGTTACGACCAATACTGGCACA
