

File S2

Sequence Data

Red C is insertion point of P-element from Bloomington stock 11790. Blue letters are where primers were designed to verify presence of insert.

4/8/10 - Primers designed to be used with P-element inverse repeat primer. If insert is there, product should be seen following PCR.

- Gish Forward Primer – gish11790_f (to be used with Repeat Reverse Primer) - CGT AGC ACG AGG CTG TTT TC (expected size ~516)
- Gish Reverse Primer – gish11790_r (to be used with Repeat Forward Primer) - CGC AAG CCT ATG GTC TCT AG (expected size ~523)

Gilgamesh gene region sequence near insertion (from Flybase)

ATATGGCCAAAAGTCGAGTAGTTACACCCTCTCTGCCTCTTTGCCCTCTGCCTTTCTTGGTTTTCTCTCTCT
TATTCTCTTTGGGTCTTTGGCCATCGCCGCCTTGGCTCGTTTTTGCATCGAATAACAAAACCTTGAAAATTTA
TAAAAATAAACGAAATCACGTACGAAATATTTACTTCGACCTTGC GGCCCAGAGATTTTTCCAACAATTTA
TACGGCGCGGTGGCCATGGCAGCTAATTAGCCTAATTTCTGTAATTTCTAAATTTTAATTTGGTACCTTTTA
GAAGAGAGTAACCTTTCATTTGTGCGACGATGACTTTAAAAGTTTTAAGTTAAAGTCAATAGTAACCTTACTAA
ATTAATGAAAATCAATTGAAAAAACAATTTAGTTAGCGCTCTCATCAGTGCTTTTGTGTGACCAG
CATACGCTATGGCTGGCCTAACATACCAAAGAAATACCGCAGTTTCGTACATTCATTAGTCTATTTACTATT
TTTATTATCCATACAGAATGAAAAATGTTAAATCGTCGGTAATATGAGTTTTTTTATTTTTGTATCAGTTAAC
ATGATCTTTTCGTCAAAACATTCAAAGCGCTTGAATTAAGACCGATCTTTACGTTTACAATTTTGTATTTCAG
CTCTTTTACAATTGCTTTAACTTTTCCATTCTTATTTTTCAGATTGCTTTGATTTCCACGATCGTGAGCATTAAA
AGTTTAGGCGTGATACTGACCGGTTAAATTTCCCTTAATTGAAATTTAACTACATATTTAAACAGCAACATAGT
CCCTTTTGCCTAAAATGTCATCAAAAACCTGGGAGGAAAAATATCATAGCAACAATCTGAATGAATTCGGAGAT
TCAGATCTGTTGTCAAAAAATTGTTGGATAAAATGTGCGAAAGTGTGTTTGTCAAATTTAGCCAAAATT
ATTTGTTTACATAGTTGTTTCAGCGTAGCACGAGGCTGTTTTCTTAATTCTTAAACAACATAGATACACTCGCC
TTGGCTAATTTACACCGGAACCTAAAGCCGATTAACAATAGGAAAAATAGTCCACGACAAAATAGCCCGCCTT
TTGACATATGAACACATAACTAAACTACCACACAGCTACCAAAAACATAAAAATAAATTCGGAAAGTATAGCA
CCAAAGCTGAAATTTCAAGGAGATGCTGCTCAAATTTTACACTTTGATGTCAAACAACGACGACCCCATAGCA
ACAACAACAACAACAGCAGAAAGAGAAGGAAAAGGAACAACCTGGAATAACTGTAAGCTAGCGAACAGAGGG
AGAGAGGCAATCTCTGTACACACACCTGTGCTCCAGCGGGGAAAGAGCAAAAAGAGAGCGACGGATCTCC
CGTGTGTGTTGTTTCGCATGCGCGACATGCGCGGACGCTAAGTGAGTGTGAGTGAGTGCGCGAATGCGTGT
GAGTGTGGGCGGTGAGGATAATTCGCTCAATTCGCACGCATCCACAGATCCTGCAGATCCTCCAGTTTGT
TCGTCAAACAGAGTCAGCATTTCCGGATCAAACCAGTTGCTGTGTCAGCAACATTAACAGCCTCAACGTTGGAA
AAAAAAAACAAAAGCAGCAGCGGCAGTCGATAAAAAAATCATTATCAAAAATTACGGAAAAGCGATCAAAAAT
CAAGCGAGATTAGCTAGGCGAAATGCAGCGACGAGAACGGCAAGCAAGGTGAGTTATGATTGTGTAATTGT
ATATCGATTATCCCCAAATTCATAAAGAGGTAATGGTTCTAAGACTCTTTCAAAAATTAATAAATTAATCCCTAC
CATTTAAGTTGGCATTGCTTTTGGCTACAGTATTGAAACCCATTTATAGTTTTCTATTGTCAATCGAAAATCAA
GATAAGCGAATCTAGCCCACTGGCTTTATCCCTGCTTTTGAATCTGAATCTTTTGTACGCCCTTAGCTATAC
CTTCCAACCTCAAGCGGTACTCAAATTTGACTAGAGACCATAGGCTTGCGACTATTTATAATTTTGCATTGA
TAAGCCGTGCTAAAAACCATTGCCACTATCTACGGAAGCGACGTCTGTTCTATAAATGTTCCATATTCGGT
ACTACAGTACACTGTTATCAGGCGTAGAAGCGGTTGGATATTTTGTAGCGATAAGATTATGGCTGTGTCCGG
GAAACGCGTGTGTTGCAAGTTTTAAAACCTAACAGTTTTGATTTGGTTGGCTTAGTTAACCAATAGAAGTACTAGCT
TTTCTTTCACTCATAAAAACTTTTTAAAATATTAACGAATGCAAACTGCGAATTTTTTAAAGAAAATGAGTCTGGT
TAAAATAATTTTATTTTCGTTTAAACATAAATAAATTTCCATAAAGCTAATTCCTTTTAAATTCCTAGCGAATACT
GTACATTGTCAAAGTTCAAGCAACAGATTTAGTTGTAGCTGCCTTTTTTGGCGAACGATTTTATTTTTAGCAA
AGAGATGTTTCTATTTAACTTGTGTGTTGATTTTATTTTATTTTCGCAAGTGTGTTTGTGCTTTTGGCTTAT
GGCGTCTGCTTTTCTCGCCTCTGGCAGCCAGCCAAACTAAGAAGAAGAGCCATGAGAAGGGGGTGAATG
AAATGGGTTTCCAATGCAATACATAATACCCACATACATATGTGGGTGCGTGATAGATAGCACCGGTC
TTTCGTGTAGGAGAGCGGGAAACGAAGTGCACACAACCTCACGCACATTATAAATATTTTATAGGCATTTT

Hop AA Sequence:

aGTCCTaCGTACAAATaGCCCCGCTTTTGACATATGAACACATAACTAAACTACCACACAGCTCACAAAAACA
TAAATAAAATTCGgaAAGTATAGCACCAAAGCTGaAATTTCAAGGAGATGCTGCTCAAATiTCATACTTGATGT
CAAACAACGACGACCCCATAGCAACAACAACAACAACAGCAGAAAAGAGAAGGAAAAGGAACAACCTGGAAT
AACTGTAAGCTAGCGAACAGAGGGAGAGAGGCAATCTCTGTACACACACCTGTCGTCCAGCGGGGAAAGAG
CAAAAGAGAGCGACGGATCTCCCGTGTGTGTTGTTTCGCATGCGCGACATGCGCGGACGCTAAGTGAGTGTGA
GTGAGTGCGCGAATGCGTGTGAGTGTGGGCGGTGAGGATAATTCGCTCAATTCGCACGCATCCCACAGA **T** CCT
GCAGATCCTCCAGTTTGTTCGTCAAACAGAGTCAGCATTTCGGATCAAACCAGTTGCCTGTCAGCAACATTAA
CAGCCTCAACGTTGGAAAAAAAAAAAAAACAAGCAGCAgCGGCaGTCGATAAAAAAaTCTTTaTCAAAaTTACGG
AAAAGCGaTCAAAaTTCAaGCGAGaTTAgcTAGGCgAAaTGCAgCGACgAgAACGGCAAGCAAGGTGAGTTATGA
TTGTCTAATTGTATATCGATTATCCCCAAATCCATAACGAGGTAATGGTTCTAAgACTCTTTCAAAAATTAAA
AATTAATCCTACCATTTAAGTTGGCaTTGCTTTTGCTACaGTATTGAAACCCaTTTATAGTTTTCTaTTGTCA

- No sign of p-element. Precise excision