**CG13617**

>1-CRISPR CG13617 deleted region-Flybase

(deleted region CG13617: from (A) 24,515,595 to (C) 24,515,849)

ATGGGATTCAAGGGCAAATATCCGCAGATGGTCCGTGAAACGGGCTTTAAACTGAGACAGTATCGCGATGGTCCACTGG

ATTGGAGACTTATGGGTATGGAAAATTATGTTAAAAGTAGTTAACACTTAGTTCATAGCGGTATTTCCGGCAGGATCCT

ATGAAACAGAGCGGATTCTCAGGGAGCAAAACTTCGAGCTGGTGGACAAGGCGTTGACCCACCTTTCTGAGGCTCCACT

GGGCACAGTGCTGGAAAC

Exon1 CG13617 (partial)

Exon2 CG13617 (partial

>2-genomique-CRISPR-CG13617-flybase

CTGATCCAAATGCTTCAGATCCACTTGGGCACCATTGTAGGTCCATGAACCGAATTTCATGAAGCAAATTTGTTCGTCG

TACGGAAAGTATTCGACATTCATCTCACAGGATGACTTGTATATAGCAGGTGGCTCCCAAAAGACTTCTCCCGTATACT

TCAGAGTGGCTTTCGTCATCAGAGTTACCTAATAATATATATTTCAGTTAACTATGAACACATTATTGAGAACATCGAA

GCTAACTTCATAGTTGCCATCCCAGTTGTTGTACAACACAATGTCCGGTACCCAAATGTGCTCAGATGGCACATACAGC

TGTTCAACTCCGCCGTATTCCTCTGGATCCCATCGCAACTTGTAGTCGAACCAGCGCTTTAATAAAATCCATTAATAAT

AGATAATAACAGTATATGGCAGTGATAACTACCTGCTTCACCCACAGATTGGTGGTCATCACCTGATTCTTCAGATTGA

CCTCAATCAGCTGAGACAATTTCAGACCTAACCAAACCGTCAGGGTCTCCGTGTTGTTCACAACGGGCCTAATCAATCG

ATTGTAGTTGCTCAACAAATCATCATAGAGACGTTTGGTGTCCGGATTTGCCTCAAAACTTATTGGAGCTAGGAAAGTG

GTGGTAATTCAGGGGAAAAACAGAGAAAAATGCCAAATTAAATTCCCAAACAAATGGAAAATTTCCCAAAACAAATTGC

TGCGCAGACGCCGCTCTCTTGCTCTCTTGTGGGCGCAGCTTCCTGACATCTGTCAAATACTTGGGATACAGCATCAGGG

TATCGGAATTTTCACAGGATTTTTCTCGGACTGACGCACAAGTTTTCGCAGCTTACCCGTGGAATTCGCCAACGGAACA

AGTAGGAAAACACACAACAAACTCCAATGCCACATTTTGTTGCTGTTTTCTCTAGCTTTTTGTGCTACTTATTGCTTAT

AATTGAAGGTTTTTAACTAAACTTAACACATTTTGCTAGGAGTTTCCGTTTAATACAACCTCACGGTTGGAGAGTCCAA

TCGCAACTGAGTTGAGCCTTTTGACAGATGCTTCAACGGAGATGCTCGATAGCTCCTAAATGTTTTATCTAAAAGGATC

CTGCCATTTATCGTGTCTTTCGCGGTTCTTTTGAATTATTTGTGTTAAAAGATAATAAAATAACATAACAGAATGAACA

ATAACAAAAGTAATTCTAATCAATACTAACAATATTAAAAACTGTAATCTCTTAATGGCAGTTAGTTTTAAAACCTAAT

AATAGGAATGAGCATTTTTTACGATATCATGCTTGTAATATGCATTTTCAGAGGCTCAACAACCCTACTTTCAACCTGT

CGTCCTGACAACCTAGTTGTAGTTGCTTTGGCAACGTGTAACCAAAAACTAAGAAACACACAAGGGTGGTAAGAAAAGT

GGCAGATAAAGTTTGGCAAAGAACGGAAGCAAAACAAAGAAGGCGAGGAAGAAGTAAACAAACTTTCGATTTTTTTTGC

AGTCCTGGGTGATTCAGATTCAGAGAAcaTATGCAGGTACCATAACTTCGTATAATGTATGCTATACGAAGTTATCGTA

CGACTAGCACCTGACTGTCGAGCCCAGTGGAAACCCTTGAAATGCCTTTAAGTCGAGCCCAGTGGAAACCCTTGAAATG

CCTTTAAGTCGAGCCCAGTGGAAACCCTTGAAATGCCTTTAAGTCGAGCCCAGTGGAAACCCTTGAAATGCCTTTAAGT

CGAGCCCAGTGGAAACCCTTGAAATGCCTTTAAGTCGAGTAGCAGTCGAGGTAGGTACGTCATGCCCCGTTATTCTCTA

TTCGTTTTGTGACTCTCCCTCTCTGTACTATTGCTCTCTCACTCTGTCGCACAGTAAACGGCACTCTATTCTCGTTGCT

TCGAGAGAGCGCGCCTCGAATGTTCGCGAAAAGAGCGCCGGAGTATAAATAGAGGCGCTTCGTCGACGGAGCGTCAATT

CAATTCAAACAAGCAAAGTGAACACATCGCGAAGCAAGCTGAGCAAACAAACAAGCGCAGCTGAACAAGCTAAACAATC

TGCAATAAAGTGCAAGTTAAAGTGAATCAATTAAAAGTAACCAACAACCAAGTAATTAAACTAAAAACTGCAACTACTG

AAATCAACCAAGAAGTCATTATTGAAGACAAGAAGAGAACTCTGAATAGGTCGATAGCGTCAATTCGGCACGAGGTTTC

GTGACGAAGCTCCAAGCGGTTTACGCCATCAATTAAACACAAAGTGCTGTGCCAAAACTCCTCTCGCTTCTTATTTTTG

TTTGTTTTTTGAGTGATTGGGTGGGTGATTGGTTTTGGGTGGGTAAGCAGGGGAAAGTGTGAAAAATCCCGGCAATGGG

CCAAGAGGATCAGGAGCTATTAATTCGCGGAGGCAGCAAACACCCATCTGCCGAGCATCTGAACAATGGTGACAGCGGA

GCGGCTTCGCAGAGCTGCATTAACCAGGGCTTCGGGCAGGCCAAAAACTACGGCACGCTCCTGCCACCCAGTCCGCCGG

AGGACTCCGGTTCAGGGAGCGGCCAACTAGCCGAGAACCTCACCTATGCCTGGCACAATATGGACATCTTTGGGGCGGT

CAATCAGCCGGGCTCCGGATGGCGGCAGCTGGTCAACCGGACACGCGGACTATTCTGCAACGAGCGACACATACCGGCG

CCCAGGAAACATTTGCTCAAGAACGTTTGCGGCGTGGCCTATCCGGGCGAACTTTTGGCCGTGATGGGCAGTTCCGGTG

CCGGAAAGACGACCCTGCTGAATGCCCTTGCCTTTCGATCGCCGCAGGGCATCCAAGTATCGCCATCCGGGATGCGACT

GCTCAATGGCCAACCTGTGGACGCCAAGGAGATGCAGGCCAGGTGCGCCTATGTCCAGCAGGATGACCTCTTTATCGGC

TCCCTAACGGCCAGGGAACACCTGATTTTCCAAGCCATGGTGCGGATGCCACGACATCTGACCTATCGGCAGCGAGTGG

CCCGCGTGGATCAGGTGATCCAGGAGCTTTCGCTCAGCAAATGTCAGCACACGATCATCGGTGTGCCCGGCAGGGTGAA

AGGTCTGTCCGGCGGAGAAAGGAAGCGTCTGGCATTCGCCTCCGAGGCACTAACCGATCCGCCGCTTCTGATCTGCGAT

GAGCCCACCTCCGGACTGGACTCATTTACCGCCCACAGCGTCGTCCAGGTGCTGAAGAAGCTGTCGCAGAAGGGCAAGA

CCGTCATCCTGACCATTCATCAGCCGTCTTCCGAGCTGTTTGAGCTCTTTGACAAGATCCTTCTGATGGCCGAGGGCAG

GGTAGCTTTCTTGGGCACTCCCAGCGAAGCCGTCGACTTCTTTTCCTACGTGGGTGCCCAGTGTCCTACCAACTACAAT

CCGGCGGACTTTTACGTACAGGTGTTGGCCGTTGTGCCCGGACGGGAGATCGAGTCCCGTGATCGGATCGCCAAGATAT

GCGACAATTTTGCCATTAGCAAAGTAGCCCGGGATATGGAGCAGTTGTTGGCCACCAAAAATCTGGAGAAGCCACTGGA

GCAGCCGGAGAATGGGTACACCTACAAGGCCACCTGGTTCATGCAGTTCCGGGCGGTCCTGTGGCGATCCTGGCTGTCG

GTGCTCAAGGAACCACTCCTCGTAAAAGTGCGACTTATTCAGACAACGATGGTTGCCATCTTGATTGGCCTCATCTTTT

TGGGCCAACAACTCACGCAAGTGGGTGTGATGAATATCAACGGAGCCATCTTCCTCTTCCTGACCAACATGACCTTTCA

AAACGTCTTTGCCACGATAAATGTGTTCACCTCAGAGCTGCCAGTTTTTATGAGGGAGGCCCGAAGTCGACTTTATCGC

TGTGACACATACTTTCTGGGCAAAACGATTGCCGAATTGCCGCTTTTTCTCACAGTGCCACTGGTCTTCACGGCGATTG

CCTATCCGATGATCGGACTGCGGGCCGGAGTGCTGCACTTCTTCAACTGCCTGGCGCTGGTCACTCTGGTGGCCAATGT

GTCAACGTCCTTCGGATATCTAATATCCTGCGCCAGCTCCTCGACCTCGATGGCGCTGTCTGTGGGTCCGCCGGTTATC

ATACCATTCCTGCTCTTTGGCGGCTTCTTCTTGAACTCGGGCTCGGTGCCAGTATACCTCAAATGGTTGTCGTACCTCT

CATGGTTCCGTTACGCCAACGAGGGTCTGCTGATTAACCAATGGGCGGACGTGGAGCCGGGCGAAATTAGCTGCACATC

GTCGAACACCACGTGCCCCAGTTCGGGCAAGGTCATCCTGGAGACGCTTAACTTCTCCGCCGCCGATCTGCCGCTGGAC

TACGTGGGTCTGGCCATTCTCATCGTGAGCTTCCGGGTGCTCGCATATCTGGCTCTAAGACTTCGGGCCCGACGCAAGG

AGTAGCCGACATATATCCGAAATAACTGCTTGTTTTTTTTTTTTACCATTATTACCATCGTGTTTACTGTTTATTGCCC

CCTCAAAAAGCTAATGTAATTATATTTGTGCCAATAAAAACAAGATATGACCTATAGAATACAAAAAAAAAAAAAAAAA

AAAAAAAAAAAACTCGACACCGGTATAACTTCGTATAATGTATGCTATACGAAGTTATCACTAGTAAAgatctTCACAT

TCTGGACAGTGGCATTGCCAAGTACTTTGTGATGTCTCAGTATGCCATACAGTATTTGATGTGCTGTCGCACTTACCTG

GACGAATGTGTCACAGATCTAAAGGAAGCGCATACGACGGCCCAGGAGGAGATAGCTACGCTGCGAAAGTCCCTGAGTG

AGTCAAACAACGAAGTGGTGCAGCTGCACAAGAGAATCACCCAGATCGAGGCCATTCGCGAGGTGGTATACCCCTGTCA

TCTGTGCACTAAGAACTTCATCAGCAACGAGGCCTTGAATGTGCACATTGGTCGGAAGCATCGTGTGGCCTCACCGCCA

AGTCTGACATCCGCCACCGGGAAGGAGAAGGATCGGGATAAGGCCACCGATGTGCACCTGATAAACACCATCAAAATGG

AGCTGGAGATCAAGCAGCTAAAGGAGCGCCTGAATGCCGCCGAGCGGAATATTAAGGAGCGGAGCACGGGATCGAAGCG

GGTAAGTCCGCGCCAGGAGCAGCGCCACGTGGGCATACAGAGCAATCTGGCGGAGCCAAAGGAGAAGGACGAGGACAGC

GGAGAGGCCAGGCAAAGCGAGGCCAGCGAACGGAAGGAGCAACTCACAGGATTGGCGGAGCGACTGAGCAACTTTGAGG

AGTGGCAAACGCAGCTCAAGCAGAGCAACGAACAGTTTATACAGGTAGAATCAAGTAATCCTTACTCCTGTGGAAGTAC

CATTACAATTTATATCCTTTCAGGACATTAACAAGAGGCTGGAGGGCCTGAGCCACGCACTCGAGCAGAGTAAACAGGC

ATCCGCCAGCACGCCTCCGCTGGAAGATCGGGTGGCCACGCCGTGTCTGGAGGATCTGGAGCGCATACTCACTGAGAAG

GTGGCAGAGATTGGAAAGGTCAGCGCACACAGGCTGGAAGAGGTGGTCTATCACCTTGAGGAGGGCTACAAGGAGAAGC

TAGGGGCACTGGAGCGAGAGCTCAAGCAGCTGAGTGTTCAAAAGGTGCAGCCAGAGCCTGTGCAGACTGTGCCAGTTGC

CTCGAAAATACCCAAGCCGGTGGTTCGCAAGGAGGAAACCAACATTGATCGGATTCGCAAGCAGGTGGAGAGCGAGTTC

CTCAAACAGAAACATGACGATGACACCTATTCCATTGAGGAGGCGCCACGAAAAGGTTCGGAGAAACCATTCCCACAGC

TGGTGACCCAAGTTCAAGTGGTGGAAAAGGAGCAGCCAAGTGCTGGAAGTTCGGACAGCAATCCGACTTATACGAAATC

TCCAAGGGAACCTGCTCCTAATAAGCAGGAAACGAAAGAAGCCACGGACGTAAGCGATAGTCTCAGCCAAGAAGAGACG

GAGAACGAAGAGGAGCGCAGCCTGACAGAGGAGGAGGGGACCGATGTTCCCACCTCCGGGTCGGAAGCAGCACGAGAGG

ATCCAACGCCAAAAACAATCAAGCCTTCTGGAAGAATCATCAAGTGAGTGTTTCGATGTTAAGCTTTCTTAGAGTAATA

ATAATCCACATGTTTTAAGGAGCCCTCAAAAACCACTTACTCGCAAGGATGCCCGGAAGATGGTCAACCGGAAGTTGAT

GTCTCACGGCTTCGATATGAAGTCCAAAGGTATTTCGCATAACTCTTTGAAGAGAGTGAACTCCGAGCTGACAGAGCAC

CGCAACAAACTGAAACTGGTAAGCCTATAACTGCCAAAAACTAATGAACTTTTGACAATTCTGGAATACCCTTTAGCAA

CATCCACATTTTTACGCCACTCGAAATCGCATCCGCAAGTTTGTCGAAAAACTGTGCTCCGCCAAGTTCTCGGAACGCG

CGGAAATGTTGCTGAAGCACAAGAGTCCACTCAAGCCAATGGAGGTTCCAGGCAAAGGGATCCCGAGGTCTGCGATCTC

TGAAAAGTCTGAAGAGGATATAGCCAGCTCTCAAGGCGAAGAGCAGACGGATGAGCAAACGGATAGCAGCGAACAGCAA

ACTCGAAGCCCCAGTCCTCAAAGACTAGTTAGTCGCGATTTCAAGGCTCGTCTGGAGGAGATCCTGGTCAAGCCGGCGG

CCACTATTCGAGGAGCTTCCAAGTCGTCCCTGAGTTCGAGGCCAGTTCCGCTGCCCAGGAAGCGGGTGATGTTCAACAC

CACGGAGGACGGGAAGAGCTTCAATGACAGCGATGATAACCTAAAATGAGTCAATAAAGATGATATTATAATACTTTGG

GTATAAATGTCAACGATACGTTTAATAGCCAATATATCATAAGATAATTATATTCCTTTATGAGTACCTATCACCTGTT

CAATGTA

pJT38 sequences (containing white cassette)

Partial exon1 CG13617

Partial exon2 CG13617

**CG6405**

>3-CRISPR CG6405 deleted region-Flybase

GCAGATCGGGACTCCTTTGATGAGTTGGCCAAGAGTGTGAAGAGCTACGCCGACGACGAGGAAATCAACGAGAGTCTCT

GTCAGGGACTGAAGAGCTTCACCAACGCGGTTACCATAATGGGTGATTACATGGACATCAATGTACACCGATTGGAACA

CAAGGTGAATTATCCTTTTTTAAATCTGCATCTTATATCATATTATTGACTTATGTAGATTGTCAACGAGTTGGCGCAA

TTCGAGCAGCTTTGCAAGTCCACAAGGGACAATCTTCGACTGGCTGTCATAGCGCGG

End of intron1 CG6405

Partial exon2 CG6405 (missing 2 bp from the beginning)

Intron2 CG6405

Partial exon3 CG6405

>4-genomic CG6405 CRISPR-FlybBase

gcgccatctatgtacttgcgGAAGAAGCTGATACTAGCGCCACCTGGCAGCAGTAGGTTCTTAACATTTCTGTTAATTT

TACAGAGCTGGAAATATGCTGGCTGTTCGAAGGAGAGTTGCCAGATGAATTTAGACGTTGCCTTGGTAACGGTTTTCAC

TTGATTTTATTGTCGAAATAAAATAAATAAAGAAGAAAACAAATATAAGGAACTAAAATAAAATAATAATGTTTCGTCG

TGGAAAACTATCCTTTCTAAACACCAAAGATGACCGTGTTAAAATAATAAACGAGCGCATAAACATAACAGAAAGGCAT

CTAATGGAGATGTGCTCTTCGTTTGCTTTGGTAACGCGGAAAATGGCCAAGTGAGTTTGGTAAATAAATAAATCTGAAT

GAATAATCATAAGACCTTATGATAAGGAGGTACTACGTCAGCGCCAGATGCTTGAGCTCAAGTCAAAGTTTTCTGCGAA

CAATGTGGGTATTAAAACGAACAATTTACTTCTTATATAATTCCCAAAACTTACCGTAGAGTGCCGCcgattcggagct

Gtttaagg

Exon1 CG6405

Partial intron1 CG6405 (missing GCAG at the end)

AT from exon2 CG6405

Intron2 CG6405

Partial exon3 CG6406