

Figure S2.

a) Sequence of the 20<sup>th</sup> exon of the *unc-22* locus in N2

genomic sgRNA site (PAM bold)

AACCGCCGATGAAGTACAGTTTCCTGAACCCGTTGCCGAATACACAGGAGATCTACCGTACT  
AAGCAAGCAGTGCTCACATGTAAAGTGAACACACCACGT**GCTCCATTGGTATGGTACCGTGG**  
AAGCAAGGCTATTC AAGAAGGAGATCCACGATTCATTATTGAAAAGGATGCCGTCGGTCGTT  
GTACACTTACAATCAAGGAAGTTGAGGAAGACGATCAAGCTGAATGGACTGCTAGAATCACA  
CAAGACGTGTTCTCAAAGGTTCAAGTGTACGTTGAGGAGCCACGGCATA CATTGTTGTTCC  
AATGAAGTCGCAAAAAGTCAACGAAAAGTGATTTGGCAACATTGGGAGACTGATGTTAACGACA  
AGGATGCTGAAGTTGTTTGGTGGCATGATGGAAAGAGAATCGATATTGATGGAGTGA AATTC  
AAGGTTGAATCTTCAAACAGAAAGAGAAGACTTATTATCAATGGAGCTAGAATTGAAGATCA  
TGGAGAGTATAAGTGTACA ACTAAGGATGATAGA ACTATGGCTCAGCTCATCGTTGATGCTA  
AGAATAAGTTCATCGTTGCTCTCAAAGACACTGAAGTTATTGAGAAGGATGATGTTACATTG  
ATGTGTCAGACAAAGGACACAAA AACTCCTGGAATTTGGTTCCGTAATGGAAAACAAATTTTC  
CAGTATGCCCGGAGGAAAGTTCGAAACTCAATCGAGAAACGGA ACTCATACTCTTAAAATCG  
GAAAGATCGAGATGAACGAGGCTGATGTTTATGAAATCGATCAGGCAGGACTACGTGGATCT  
TGCAATGTGACTGTTCTCGAGGCAGAAAAGCGTCCAATTCTCAACTGGAAGCCAAAGAAAAT  
CGAAGCAAAGGCTGGAGAACCATGTGTTGTGAAGGTTCCATTCCA AATCAAGGGAACACGAC  
GTGGAGATCCAAAGGCTCAAATCTGAAGAATGGAAAGCCAATCGATGAAGAAATGAGAAAG  
CTAGTTGAAGTTATTATCAAGGATGATGTGGCTGAGATTGTTTTCAA AAAATCCACA ACTTGC  
TGATACAGGAAAGTGGGCTCTCGAACTCGGAAACTCGGCTGGAACAGCACTTGGCTCCATTCCG  
AGTTGTTTCGTTAAGGACAAGCCGAAACCACCAAAGGGTCCACTTGAAACCAAGAATGTTACT  
GCTGAAGGTCTTGATCTCGTCTGGGGA ACTCCAGATCCAGATGAGGGAGCTCCAGTTAAAGC  
ATACATCATTGAAATGCAAGAGGGAAAGAAGTGGAAACTGGGCTAAAGTTGGAGAGACTAAGG  
GAACAGACTTCAAGGTTAAGGATCTTAAAGA ACATGGAGAATACAAGTTCAGAGTCAAGGCT  
CTTAATGAATGCGGACTCTCTGATCCACTCACAGGAGAATCTGTTCTTGCCAAA AATCCATA  
CGGCGTTCCTGGAAAACCAAAGAACATGGACGCAATTGATGTTGACAAGGATCACTGTACCC  
TTGCATGGGAACCGCCAGAGGAGGATGGAGGTGCTCCAATCACTGGTTACATCATTGAAAGA  
AGAGAGAAGTCCGAGAAAGATTGGCATCAAGTTGGACAGACCAAACCAGATTGTTGTGAACT  
GACTGATAAGAAGGTTGTCTGAAGATAAGGAATACTTGTACAGAGTAAAAGCAGTCAACAAGG  
CTGGACCAGGAGACCCATGTGATCATGGAAAGCCAATCAAGATGAAAGCCAAGAAAGCTTCT  
CCAGAATTCACTGGTGGAGGCATCAAGGATCTTCGTCTTAAGGTCGGAGAAACTATCAAGTA  
CGACGTTCCAATTTCTGGAGAACC ACTCCCAGAATGTCTTTGGGTGGTTAATGGAAAACCAC  
TGAAGGCTGTTGGAAGAGTCAAGATGTCTTCTGAAAGAGGAAAGCATATCATGAAGATCGAA  
AATGCAGTTCGTGCTGATTCCGGAAGTTCACTATCACTTTGAAGAACTCTTCTGGCTCATG  
CGACTCGACCGCCACGGTCACTGTCTGTTGGAAGACCAACTCCACCAAAGGTTCCACTCGATA  
TTGCTGATGTTTGTGCCGATGGTGCAACCCTTTCTGGAATCCTCCAGATGATGATGGAGGT  
GATCCACTCACAGGATACATCGTTGAAGCTCAAGATATGGACAACAAGGGAAAATACATTGA  
AGTTGGAAAGGTTGATCCAAACACCACTACCTCAAAGTTAATGGACTCCGTAACAAGGGAA  
ATTACAAGTTCGCGTGAAGGCAGTCAACAACGAAGGAGAATCTGAGCCACTTTCTGCTGAT  
CAGTACACTCAGATCAAGGATCCTTGGGATGAACCAGGAAAGCCTGGAAGACCAGAAATTAC  
CGATTTTCGATGCGGATAGAATTGACATTGCCTGGGAGCCACCACACAAAGATGGAGGAGCTC  
CAATCGAGGAGTATATTGTCTGAAGTTCGTGATCCAGATACCAAAGAATGGAAGGAAGTCAAG  
AGAGTTCAGACACCAATGCATCAATTTCTGGATTGAAGGAAGGAAAGGAATATCAGTTCAG  
AGTTCCGGGCTGTTAACAAGGCTGGGCCTGGACAACCTTCCGAACCATCAGAGAAGCAATTGG  
CTAAGCCAAAATTCA

**b) Sequence of the 20<sup>th</sup> exon of the *unc-22* locus in the *unc-22(bch26)* allele**

remainder of the genomic sgRNA site

unknown

*Peft-3* in forward orientation

remainder of the sgRNA site in the *Peft-3::gfp::h2b::tbb-2*

3'UTR plasmid

plasmid sequence

AACCGCCGATGAAGTACAGTTTCCTGAACCCGTTGCCGAATACACAGGAGATCTACCGTACT  
AAGCAAGCAGTGCTCACATGTAAAGTGAACACACCACGTGCTCCATTGGTATGGGTCCTTTG  
TATAGAAAAGGGTCCTTTGTATAGAAAAGTTGGCACCTTTGGTCTTTTATTGTCAACTCCA  
TTGGTTCTTCCATTGTTTCTGTAAATTAATGAATTTTTTCATAAAAATAAAGACATTATACAA  
TATAAAAATGAAGAATTTATTGAAAATAAACTG [UNKNOWN SEQUENCE ]  
CAGATGCGTAAGGAGAAAATACCGCATCAGGCGCCATTCGCCATTCAGGCTGCGCAACTGTT  
GGGAAGGGCGATCGGTGCGGGCCTCTTCGCTATTACGCCAGCTGGCGAAAGGGGATGTGCT  
GCAAGGCGATTAAGTTGGGTAACGCCAGGGTTTTCCAGTCACGACGTTGTAAAACGACGGC  
CAGTGAATTTCGAGCTCGGTACCTCGCGAATGCATCTATAAG  
**GACAAGCCGAAACCACCGGAAGCAAGGCTATTCAAGAAGGAGATCCACGATTCATTATTGAA**  
AAGGATGCCGTCGGTTCGTTGTACACTTACAATCAAGGAAGTTGAGGAAGACGATCAAGCTGA  
ATGGACTGCTAGAATCACACAAGACGTGTTCTCAAAGGTTCAAGTGTACGTTGAGGAGCCAC  
GGCATACATTCGTTGTTCCAATGAAGTCGCAAAAAGTCAACGAAAAGTGAATTTGGCAACATTG  
GAGACTGATGTTAACGACAAGGATGCTGAAGTTGTTTGGTGGCATGATGGAAAGAGAATCGA  
TATTGATGGAGTGAATTTCAAGGTTGAATCTTCAAACAGAAAGAGAAGACTTATTATCAATG  
GAGCTAGAATTGAAGATCATGGAGAGTATAAGTGTACAACATAAGGATGATAGAACTATGGCT  
CAGCTCATCGTTGATGCTAAGAATAAGTTCATCGTTGCTCTCAAAGACACTGAAGTTATTGA  
GAAGGATGATGTTACATTGATGTGTCAGACAAAGGACACAAAACTCCTGGAATTTGGTTCC  
GTAATGGAAAACAAATTTCCAGTATGCCCGGAGGAAAGTTCGAAACTCAATCGAGAAACGGA  
ACTCATACTCTTAAAATCGGAAAGATCGAGATGAACGAGGCTGATGTTTATGAAATCGATCA  
GGCAGGACTACGTGGATCTTGCAATGTGACTGTTCTCGAGGCAGAAAAGCGTCCAATTCTCA  
ACTGGAAGCCAAAGAAAATCGAAGCAAAGGCTGGAGAACCATGTGTTGTGAAGGTTCCATTC  
CAAATCAAGGGAACACGACGTGGAGATCCAAAGGCTCAAATTTCTGAAGAATGGAAAGCCAAT  
CGATGAAGAAATGAGAAAGCTAGTTGAAGTTATTATCAAGGATGATGTGGCTGAGATTGTTT  
TCAAAAATCCACAACCTTGCTGATACAGGAAAGTGGGCTCTCGAACTCGGAAACTCGGCTGGA  
ACAGCACTTGCTCCATTCGAGTTGTTTCGTTAAGGACAAGCCGAAACCACCAAAGGGTCCACT  
TGAAACCAAGAATGTTACTGCTGAAGGCTTGTGATCTCGTCTGGGGAACCTCAGATCCAGATG  
AGGGAGCTCCAGTTAAAGCATAACATCATTGAAATGCAAGAGGGAAGAAGTGGAAACTGGGCT  
AAAGTTGGAGAGACTAAGGGAACAGACTTCAAGGTTAAGGATCTTAAAGAACATGGAGAATA  
CAAGTTCAGAGTCAAGGCTCTTAATGAATGCGGACTCTCTGATCCACTCACAGGAGAATCTG  
TTCTTGCCAAAATCCATACGGCGTTCCTGGAAAACCAAAGAACATGGACGCAATTGATGTT  
GACAAGGATCACTGTACCCTTGCATGGGAACCGCCAGAGGAGGATGGAGGTGCTCCAATCAC  
TGTTTACATCATTGAAAGAAGAGAGAAGTCCGAGAAAGATTGGCATCAAGTTGGACAGACCA  
AACCAGATTGTTGTGAACTGACTGATAAGAAGGTTGTGCAAGATAAGGAATACTTGTACAGA  
GTAAAAGCAGTCAACAAGGCTGGACCAGGAGACCCATGTGATCATGGAAAGCCAATCAAGAT  
GAAAGCCAAGAAAGCTTCTCCAGAATTCAGTGGTGGAGGCATCAAGGATCTTCGTCTTAAGG  
TCGGAGAACTATCAAGTACGACGTTCCAATTTCTGGAGAACCACTCCAGAAATGTCTTTGG  
GTGGTTAATGGAAAACCACTGAAGGCTGTTGGAAGAGTCAAGATGTCTTCTGAAAGAGGAAA  
GCATATCATGAAGATCGAAAATGCAGTTCGTGCTGATTCCGGAAAGTTCACTATCACTTTGA  
AGAACTCTTCTGGCTCATGCGACTCGACCGCCACGGTCACTGTCGTTGGAAGACCAACTCCA  
CCAAAGGGTCCACTCGATATTGCTGATGTTTGTGCCGATGGTGCAACCCTTTTCTGGAATCC  
TCCAGATGATGATGGAGGTGATCCACTCACAGGATACATCGTTGAAGCTCAAGATATGGACA

ACAAGGGAAAATACATTGAAGTTGGAAAGGTTGATCCAAACACCACTACCCTCAAAGTTAAT  
GGACTCCGTAACAAGGGAAATTACAAGTTCCGCGTGAAGGCAGTCAACAACGAAGGAGAATC  
TGAGCCACTTTCTGCTGATCAGTACACTCAGATCAAGGATCCTTGGGATGAACCAGGAAAGC  
CTGGAAGACCAGAAATTACCGATTTTCGATGCGGATAGAATTGACATTGCCTGGGAGCCACCA  
CACAAAGATGGAGGAGCTCCAATCGAGGAGTATATTGTCTGAAGTTCGTGATCCAGATACCAA  
AGAATGGAAGGAAGTCAAGAGAGTTCCAGACACCAATGCATCAATTTCTGGATTGAAGGAAG  
GAAAGGAATATCAGTTCAGAGTTCGGGCTGTTAACAAGGCTGGGCCTGGACAACCTTCCGAA  
CCATCAGAGAAGCAATTGGCTAAGCCAAAATTCA