**Off-target analysis:**

Target Motif 1

5’-TGGTTCGACAACCCGCAGGGCAAGTCCCGGGCGGT-3’

>Query\_1:1-35\_alignment\_gnl|Hv-Morex3|chr3H:612458327-612458361

TGGTTCGACAACCCGCAGGGCAAGTCCCGGGCGGT

|||||||||||||||||||||||||||||||||||

TGGTTCGACAACCCGCAGGGCAAGTCCCGGGCGGT

>Query\_1:1-35\_alignment\_gnl|HvIgri|chr3H:617019814-617019848

TGGTTCGACAACCCGCAGGGCAAGTCCCGGGCGGT

|||||||||||||||||||||||||||||||||||

TGGTTCGACAACCCGCAGGGCAAGTCCCGGGCGGT

Target Motif 2

5’-ACCCCATTTGTGCCAATGGCGGTAAATGGACCATC-3’

>Query\_1:1-35\_alignment\_gnl|Hv-Morex3|chr3H:612460127-612460161

ACCCCATTTGTGCCAATGGCGGTAAATGGACCATC

|||||||||||||||||||||||||||||||||||

ACCCCATTTGTGCCAATGGCGGTAAATGGACCATC

>Query\_1:1-35\_alignment\_gnl|HvIgri|chr3H:617021506-617021540

ACCCCATTTGTGCCAATGGCGGTAAATGGACCATC

|||||||||||||||||||||||||||||||||||

ACCCCATTTGTGCCAATGGCGGTAAATGGACCATC

>Query\_1:1-35\_alignment\_gnl|Hv-Morex3|chr1H:244446841-244446875

ACCCCATTTGTGCCAATGGCGGTAAATGGACCATC

||||||||||||||||||| ||||||||||||||

ACCCCATTTGTGCCAATGGTCGTAAATGGACCATC

>Query\_1:1-35\_alignment\_gnl|HvIgri|chr1H:245488239-245488273

ACCCCATTTGTGCCAATGGCGGTAAATGGACCATC

||||||||||||||||||| ||||||||||||||

ACCCCATTTGTGCCAATGGTCGTAAATGGACCATC

Target Motif 3

5’-GGAGCAGTCGTCAGCGTGCGTAAGAACCAGGAAAG-3’

>Query\_1:1-35\_alignment\_gnl|Hv-Morex3|chr3H:612460340-612460374

GGAGCAGTCGTCAGCGTGCGTAAGAACCAGGAAAG

|||||||||||||||||||||||||||||||||||

GGAGCAGTCGTCAGCGTGCGTAAGAACCAGGAAAG

>Query\_1:1-35\_alignment\_gnl|HvIgri|chr3H:617021719-617021753

GGAGCAGTCGTCAGCGTGCGTAAGAACCAGGAAAG

|||||||||||||||||||||||||||||||||||

GGAGCAGTCGTCAGCGTGCGTAAGAACCAGGAAAG

Target Motif 4

5’-CAGGAGGATGCTAAGAGGTCCGACAAAGGCGCCAA-3’

>Query\_1:1-35\_alignment\_gnl|Hv-Morex3|chr3H:612462700-612462734

CAGGAGGATGCTAAGAGGTCCGACAAAGGCGCCAA

|||||||||||||||||||||||||||||||||||

CAGGAGGATGCTAAGAGGTCCGACAAAGGCGCCAA

>Query\_1:1-35\_alignment\_gnl|HvIgri|chr3H:617022876-617022910

CAGGAGGATGCTAAGAGGTCCGACAAAGGCGCCAA

|||||||||||||||||||||||||||| ||||||

CAGGAGGATGCTAAGAGGTCCGACAAAGCCGCCAA

*EIF4E*\_wild-type\_cds

MAEDTETRPASAGAEEREEGEIA

ATGGCGGAGGACACGGAGACGAGGCCCGCGTCGGCGGGCGCGGAGGAGAGGGAGGAGGGGGAGATCGCG

DDGDGSAAAAAGRVSAHPLENAW

GACGACGGAGACGGGTCCGCGGCGGCGGCGGCCGGGCGCGTCAGCGCCCACCCTCTGGAGAACGCCTGG

Target motif 1

TFWFDNPQGKSRAVAWGSTIHPI

ACCTTCTGGTTCGACAACCCGCAGGGCAAGTCCCGGGCGGTGGCCTGGGGGAGCACCATCCACCCCATC

HTFSTVEDFWSLYNNIHHPSKLN

CACACCTTCTCCACCGTCGAGGACTTCTGGAGCCTTTACAACAATATTCATCACCCTAGCAAGTTGAAT

Target mo-

VGADFHCFKDKIEPKWEDPICAN

GTTGGAGCCGACTTCCATTGCTTCAAGGATAAGATTGAGCCAAAATGGGAAGACCCCATTTGTGCCAAT

tif 2

GGKWTISCGKGKSDTFWLHTLLA

GGCGGTAAATGGACCATCAGTTGTGGCAAAGGGAAATCTGACACATTTTGGTTGCATACTTTGCTGGCA

Target motif 3

LIGEQFDFGDEICGAVVSVRKNQ

TTGATTGGTGAACAATTCGACTTTGGTGATGAAATTTGCGGAGCAGTCGTCAGCGTGCGTAAGAACCAG

ERVAIWTKNAANETAQISIGKQW

GAAAGAGTAGCTATCTGGACTAAAAATGCTGCCAATGAAACTGCTCAGATAAGCATCGGTAAGCAGTGG

Target motif 4

KEFLDYKDSIGFVVHEDAKRSDK

AAGGAGTTTCTGGACTACAAGGACTCCATTGGATTCGTCGTTCATGAGGATGCTAAGAGGTCCGACAAA

GAKNRYTV\*

GGCGCCAAGAACCGCTACACGGTTTGA

*eif4e*\_A169\_cds

MAEDTETRPASAGAEEREEGEIA

ATGGCGGAGGACACGGAGACGAGGCCCGCGTCGGCGGGCGCGGAGGAGAGGGAGGAGGGGGAGATCGCG

DDGDGSAAAAAGRVSAHPLENAW

GACGACGGAGACGGGTCCGCGGCGGCGGCGGCCGGGCGCGTCAGCGCCCACCCTCTGGAGAACGCCTGG

TFWFDNPQGKIPGGGLGEHHPPH

ACCTTCTGGTTCGACAACCCGCAGGGCAAGATCCCGGGCGGTGGCCTGGGGGAGCACCATCCACCCCAT

PHLLHRRGLLEPLQQYSSP\*QVE

CCACACCTTCTCCACCGTCGAGGACTTCTGGAGCCTTTACAACAATATTCATCACCCTAGCAAGTTGAA

CWSRLPLLQG\*D\*AKMGRPHLCQ

TGTTGGAGCCGACTTCCATTGCTTCAAGGATAAGATTGAGCCAAAATGGGAAGACCCCATTTGTGCCAA

WR\*MDHQLWQREI\*HILVAYFAG

TGGCGGTAAATGGACCATCAGTTGTGGCAAAGGGAAATCTGACACATTTTGGTTGCATACTTTGCTGGC

IDW\*TIRLW\*\*NLRSSRQRA\*EP

ATTGATTGGTGAACAATTCGACTTTGGTGATGAAATTTGCGGAGCAGTCGTCAGCGTGCGTAAGAACCA

GKSSYLD\*KCCQ\*NCSDKHR\*AV

GGAAAGAGTAGCTATCTGGACTAAAAATGCTGCCAATGAAACTGCTCAGATAAGCATCGGTAAGCAGTG

EGVSGLQGLHWIRRS\*GC\*EVRQ

GAAGGAGTTTCTGGACTACAAGGACTCCATTGGATTCGTCGTTCATGAGGATGCTAAGAGGTCCGACAA

RRQEPLHGL

AGGCGCCAAGAACCGCTACACGGTTTGA

*eif4e*\_T169\_cds

MAEDTETRPASAGAEEREEGEIA

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DDGDGSAAAAAGRVSAHPLENAW

GACGACGGAGACGGGTCCGCGGCGGCGGCGGCCGGGCGCGTCAGCGCCCACCCTCTGGAGAACGCCTGG

TFWFDNPQGKFPGGGLGEHHPPH

ACCTTCTGGTTCGACAACCCGCAGGGCAAGTTCCCGGGCGGTGGCCTGGGGGAGCACCATCCACCCCAT

PHLLHRRGLLEPLQQYSSP\*QVE

CCACACCTTCTCCACCGTCGAGGACTTCTGGAGCCTTTACAACAATATTCATCACCCTAGCAAGTTGAA

CWSRLPLLQG\*D\*AKMGRPHLCQ

TGTTGGAGCCGACTTCCATTGCTTCAAGGATAAGATTGAGCCAAAATGGGAAGACCCCATTTGTGCCAA

WR\*MDHQLWQREI\*HILVAYFAG

TGGCGGTAAATGGACCATCAGTTGTGGCAAAGGGAAATCTGACACATTTTGGTTGCATACTTTGCTGGC

IDW\*TIRLW\*\*NLRSSRQRA\*EP

ATTGATTGGTGAACAATTCGACTTTGGTGATGAAATTTGCGGAGCAGTCGTCAGCGTGCGTAAGAACCA

GKSSYLD\*KCCQ\*NCSDKHR\*AV

GGAAAGAGTAGCTATCTGGACTAAAAATGCTGCCAATGAAACTGCTCAGATAAGCATCGGTAAGCAGTG

EGVSGLQGLHWIRRS\*GC\*EVRQ

GAAGGAGTTTCTGGACTACAAGGACTCCATTGGATTCGTCGTTCATGAGGATGCTAAGAGGTCCGACAA

RRQEPLHGL

AGGCGCCAAGAACCGCTACACGGTTTGA