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Product datasheet for MG207547

Eif2s3y (NM_012011) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Eif2s3y (NM_012011) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Eif2s3y
Synonyms:	Eif-2gy; Spy; Tfy
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

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ORF Nucleotide Sequence:

>MG207547 representing NM_012011
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGGCGGAGAAGCCGGTGTCACTCTCGGGCAGCCGCATCTTTCTCGTCAGGATCTTGCCACTTTGG
ATGTTACCAAGTTGACTCCGCTTTCACGTGAAATTATCAGCAGACAAGCCACAATTAATATAGGCACAAT
TGGTCATGTTGCTCATGGAAAATCTACAGTTGTAAAAGCCATTTCTGGTGTTCACACTGTCCGATTCAAA
AATGAACTAGAAAGGAATATTACCATAAAACTTGGATATGCTAATGCCAAAATTTATAAGCTTGATGACT
CAAGTTGTCCTCGACCAGAATGTTACAGATCTTGTGGAAGTAGTACACCTGATGAGTTTCCTTCAGATAT
TCCAGGGACCAAAGGAAACTTCAGACTAGTCAGACATGTTTCCTTTGTTGATTGTCCTGGTCATGATATT
TTGATGGCAACTATGCTGAATGGGGCAGCAGTGATGGATGCAGCTCTTCTGTTGATAGCTGGTAATGAAT
CTTGTCCTCAACCTCAGACTTCTGAACACCTGGCTGCCATTGAAATTATGAAGCTAAAACATATTTTGAT
TCTGCAAAATAAAATTGATTTGGTGAAAGAAAGCCAGGCTAAAGAACAGTATGAACAGATACTTGCATTT
GTACAGGGTACAGTAGCCGAAGGAGCTCCTATTATTCCAATTTCTGCTCAGTTAAAATACAATATTGAAG
TTGTATGTGAGTATATAGTAAAGAAAATTCCAGTACCTCTAAGAGACTTTACTTCAGAACCCCGACTTAT
TGTTATTCGGTCTTTTGATGTTAACAAACCTGGCTGTGAAGTTGATGACCTTAAAGGGGGTGTAGCTGGT
GGTAGTATTTTAAAAGGCGTATTAAAGGTGGGACAAGAGATAGAAGTGAGACCTGGTATTGTTTCTAAAG
ACGGAGAAGGGAAGCTTATGTGTAAACCAATCTTTTCCAAGATTGTATCCCTTTTTGCAGAACACAATGA
TCTTCAGTATGCTGCTCCAGGTGGTCTTATTGGAGTTGGAACAAAAATTGACCCAACGTTATGCCGAGCA
GATAGAATGGTTGGGCAGGTCCTTGGTGCTGTTGGAGCATTACCTGAGATATTCACAGAGTTAGAAATTT
CCTACTTCCTACTGAGACGGCTCCTAGGTGTACGTACAGAAGGAGACAAGAAAGCAGCAAAAGTTCAAAA
GCTATCCAAGAATGAAGTACTCATGGTGAACATAGGGTCCTTGTCTACAGGAGGCAGAGTTAGTGCAGTC
AAGGCAGATTTGGGTAAAATTGTTCTAACCAATCCAGTATGCACAGAAGTAGGAGAAAAAATTGCTCTAA
GCCGACGAGTTGAGAAACACTGGCGTTTAATTGGTTGGGGCCAGATAAGAAGAGGCGTGACTATCAAGCC
AACAATAGATGATGAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

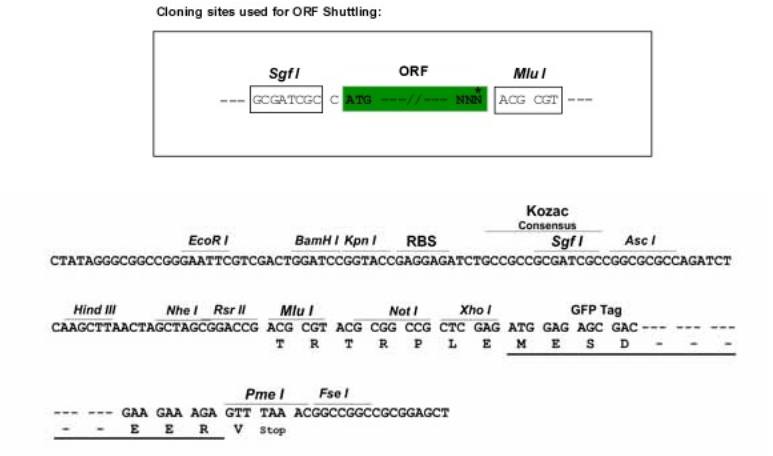
>MG207547 representing NM_012011
Red=Cloning site Green=Tags(s)

MAGGEAGVTLGQPHLSRQDLATLDVTKLTPLSREIISRQATINIGTIGHVAHGKSTVVKAISGVHTVRFK
NELERNITIKLGYANAKIYKLDDSSCPRPECYRSCGSSTPDEFPSDIPGTKGNFRLVRHVSFVDCPGHDI
LMATMLNGAAVMDAALLLIAGNESCPQPQTSEHLAAIEIMKLKHILILQNKIDLVKESQAKEQYEQILAF
VQGTVAEGAPIIPISAQLKYNIEVVCEYIVKKIPVPLRDFTSEPRLIVIRSFDVNKPGCEVDDLKGGVAG
GSILKGVLKVGQEIEVRPGIVSKDGEGKLMCKPIFSKIVSLFAEHNDLQYAAPGGLIGVGTKIDPTLCRA
DRMVGQVLGAVGALPEIFTELEISYFLLRRLLGVRTEGDKKAAKVQKLSKNEVLMVNIGSLSTGGRVSAV
KADLGKIVLTNPVCTEVGEKIALSRRVEKHWRLIGWGQIRRGVTIKPTIDDE

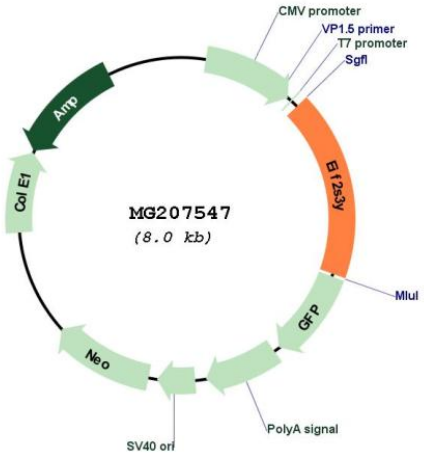
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_012011
ORF Size:	1416 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_012011.2
RefSeq Size:	1801 bp
RefSeq ORF:	1419 bp
Locus ID:	26908
UniProt ID:	Q9Z0N2
Cytogenetics:	Ypter
Gene Summary:	As a subunit of eukaryotic initiation factor 2 (eIF2), involved in the early steps of protein synthesis. In the presence of GTP, eIF2 forms a ternary complex with initiator tRNA Met-tRNAi and then recruits the 40S ribosomal complex, a step that determines the rate of protein translation. This step is followed by mRNA binding to form the 43S pre-initiation complex. Junction of the 60S ribosomal subunit to form the 80S initiation complex is preceded by hydrolysis of the GTP bound to eIF2 and release of an eIF2-GDP binary complex. In order for eIF2 to recycle and catalyze another round of initiation, the GDP bound to eIF2 must exchange with GTP by way of a reaction catalyzed by eIF2B (By similarity). Along with its paralog on chromosome X, may contribute to spermatogenesis up to the round spermatid stage (PubMed:26823431).[UniProtKB/Swiss-Prot Function]