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Product datasheet for MG226172

Efna1 (NM_010107) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Efna1 (NM_010107) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Efna1
Synonyms:	AI325262; B61; Efl1; Epl1; Eplg1; Lerk1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG226172 representing NM_010107
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGTTCCTTTGGGCCCCTCTCTTGGGTCTGTGCTGCAGTCTGGCCGCTGCTGACCGCCACATCGTCT
TCTGGAACAGTTCAAATCCCAAGTTCCGTGAGGAGGACTACACGGTGCACGTGCAGCTGAATGACTACCT
AGACATCATCTGCCCACATTACGAGGACGACTCTGTGGCAGATGCAGCCATGGAGCGATACACACTGTAC
ATGGTGGAACACCAGGAGTATGTGGCATGCCAACCCCAGTCCAAGGACCAGGTCCGTTGGAATTGCAACC
GGCCCAGTGCCAAGCATGGCCCGGAGAAGCTGTCTGAGAAATTCCAGCGCTTCACGCCTTTTATCTTGGG
CAAGGAGTTCAAGGAAGGACACAGCTACTACTACATCTCCAAACCTATCTACCATCAGGAATCCCAGTGC
TTGAAGCTGAAGGTGACTGTCAATGGCAAAATCACTCATAATCCCCAGGCCCATGTCAACCCACAGGAGA
AGAGACTCCAAGCAGATGACCCGGAAGTACAGGTTTTGCACAGCATTGGTTACAGTGCCGCCCCCCGCCT
CTTCCCACTGGTCTGGGCAGTATTGCTCCTACCACTGCTGCTGCTGCAATCTCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG226172 representing NM_010107
Red=Cloning site Green=Tags(s)

MEFLWAPLLGLCCSLAAADRHIVFWNSSNPKFREEDYTVHVQLNDYLDIICPHYEDDSVADAAMERYTLY
MVEHQEYVACQPQSKDQVRWNCNRPSAKHGPEKLSEKFQRFTPFILGKEFKEGHSYYYISKPIYHQESQC
LKLKVTVNGKITHNPQAHVNPQEKRLQADDPEVQVLHSIGYSAAPRLFPLVWAVLLLPLLLLQSQ

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

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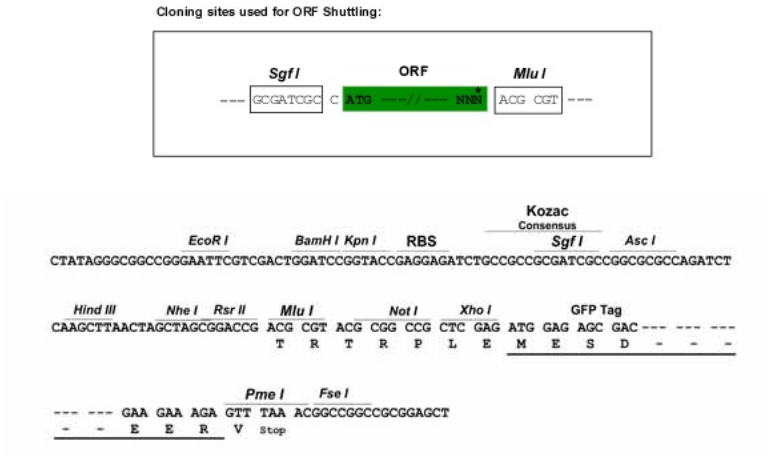
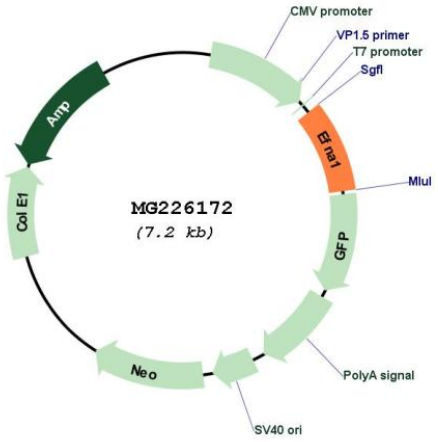
Cloning Scheme:



Plasmid Map:



ACCN:	NM_010107
ORF Size:	615 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_010107.4, NP_034237.3
RefSeq Size:	1483 bp
RefSeq ORF:	618 bp
Locus ID:	13636
UniProt ID:	P52793
Cytogenetics:	3 39.04 cM
Gene Summary:	Cell surface GPI-bound ligand for Eph receptors, a family of receptor tyrosine kinases which are crucial for migration, repulsion and adhesion during neuronal, vascular and epithelial development. Binds promiscuously Eph receptors residing on adjacent cells, leading to contact-dependent bidirectional signaling into neighboring cells. Plays an important role in angiogenesis and tumor neovascularization. The recruitment of VAV2, VAV3 and PI3-kinase p85 subunit by phosphorylated EPHA2 is critical for EFNA1-induced RAC1 GTPase activation and vascular endothelial cell migration and assembly. Exerts anti-oncogenic effects in tumor cells through activation and down-regulation of EPHA2. Activates EPHA2 by inducing tyrosine phosphorylation which leads to its internalization and degradation. Acts as a negative regulator in the tumorigenesis of gliomas by down-regulating EPHA2 and FAK. Can evoke collapse of embryonic neuronal growth cone and regulates dendritic spine morphogenesis. [UniProtKB/Swiss-Prot Function]