

Product datasheet for **MG226358**

Efna5 (NM_010109) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Efna5 (NM_010109) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Efna5
Synonyms: AL-1; AV158822; EFL-5; Ephrin-A5; Epl7; LERK-7; RAGS
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG226358 representing NM_010109
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTTGCACGTGGAGATGTTGACGCTGCTCTTTCTGGTCTCTGGATGTGTGTTCAGCCAGGACCCGG
GCTCCAAAGTCGTCGCCGACCGCTACGCCGTCTACTGGAACAGCAGCAACCCAGATTCCAGAGGGGTGA
CTACCACATTGATGTCTGTATCAATGACTACCTGGATGTTTTCTGCCCTCACTATGAGGACTCTGTCCA
GAAGACAAGACTGAGCGCTACGTCCTGTACATGGTGAATTTTGATGGGTACAGTGCCTGCGACCACAGT
CCAAAGGGTTCAAGAGATGGGAATGTAACCGCCCTCACTCCCAAACGGACCGCTGAAGTTCTCGAAAA
ATTCCAGCTCTTCACTCCCTTTCTTTAGGATTTGAATTCAGGCCAGCCGAGAGATTTTCTACATCTCC
TCTGCAATCCCAGACAACGGAAGAAGGTCTGTCTAAAGCTCAAAGTCTTTGTGAGACCAACAAATGACA
CCGTACATGAGTCAGCCGAGCCATCCCGCGGTGAGAACCGCGCGCAGACCAAGGATACCCAGCCGCT
TTTGGCAATCCTACTGTTCTCTCGCGATGCTTTTGACATTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG226358 representing NM_010109
Red=Cloning site Green=Tags(s)

MLHVEMLTLLFLVLMCVFSQDPGSKVVADRYAVYWNSSNPRFQRGDYHIDVCINDYLDVFCPHYEDSV
EDKTERYVLYMVNFDGYSACDHTSKGFKRWCNRPHSPNGPLKFSEKFQLFTPFSLGFEPFRPGREYFYIS
SAIPDNGRRSCLKLVFVRPTNDTVHESAEPARGENAAQTPRIPSRLLAILLFLLAMLLTL

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

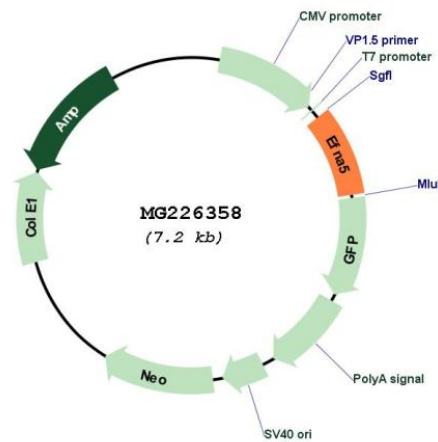


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Cloning Scheme:



Plasmid Map:



ACCN: NM_010109

ORF Size: 603 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_010109.3](#), [NP_034239.1](#)

RefSeq Size: 5178 bp

RefSeq ORF: 606 bp

Locus ID: 13640

UniProt ID: [O08543](#)

Cytogenetics: 17 32.57 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. The signaling pathway downstream of the receptor is referred to as forward signaling while the signaling pathway downstream of the ephrin ligand is referred to as reverse signaling. Induces compartmentalized signaling within a caveolae-like membrane microdomain when bound to the extracellular domain of its cognate receptor. This signaling event requires the activity of the Fyn tyrosine kinase. Activates the EPHA3 receptor to regulate cell-cell adhesion and cytoskeletal organization. With the receptor EPHA2 may regulate lens fiber cells shape and interactions and be important for lens transparency maintenance. May function actively to stimulate axon fasciculation. The interaction of EFNA5 with EPHA5 also mediates communication between pancreatic islet cells to regulate glucose-stimulated insulin secretion. Cognate/functional ligand for EPHA7, their interaction regulates brain development modulating cell-cell adhesion and repulsion.[UniProtKB/Swiss-Prot Function]