

Product datasheet for **MG211406**

Epha7 (BC026153) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Epha7 (BC026153) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Epha7
Synonyms:	Ehk3, Mdk1, Cek11, Hek11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG211406 representing BC026153
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGTTGTTCAAACCTCGTTCCCTTCGTGGATTATTTGTGTTACATCTGGCTGCTTGGCTTTGCACACA
 CGGGGGAGGCGCAGGCTCGAAGGAAGTACTATTACTGGACTCGAAAGCAACAACAACAGAAATTGGAATG
 GATTTCTCTCCACCCAGTGGGTGGGAAGAAATAGTGGTTTGGATGAGAATACTACTCCGATAAGAACA
 TACCAGGTGTGCCAGGTGATGGAGCCCAACCAGAACAACTGGCTGCGGACTAACTGGATTCTAAAGGCA
 ACGCACAAAGGATTTTGTAGAATTGAAATTCACCTTGAGGGATTGTAATAGTCTCCCGGAGTCTGGG
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 GGATGTAGGGCTTGCATAGCATTGGTTTCTGTCAAAGTGTACTACAAGAAGTGTGGTCCATTGTTGAG
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 TGATGTGATGAGTTTAGGATCACACTGTTGGCCATCAAAGAAGATCATGAGCAGCATCCAGACTATG
 CGGCACAAATGTTGCATTTACACGGAACAGGCATCCAAGTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG211406 representing BC026153
 Red=Cloning site Green=Tags(s)

MVVQTRFPWSWIILCYIWLLGFAHTGEAQAQAAKEVLLLDLSKAQQTELEWISSPPSGWEEISGLDENYTPIRT
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 STLKTKSTSASINNLKPGTVVYVQIRAVTAAGYGNYSRDLVATLEEASGKMFEATAVSSEQNPVIIIAV
 VAVAGTIIILVFMVFGFIIGRRHCGYSKADQEGDEELYFHCTKYIDPETYEDPNRAVHQFAKELDASCIK
 IERVIGAGEFGEVCSGRLKLPGRDVAVAIKTLKVGYTEKQRRDFLCEASIMGQFDHPNVVHLEGGVTRG
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 VIKAIIEGYRLPAPMDCPAGLHQLMLDCWQKDRAPERKFEQIVGILDKMI RNPSLKTPLGTCSRPI SPL
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 RAQMLHLHGTGIQV

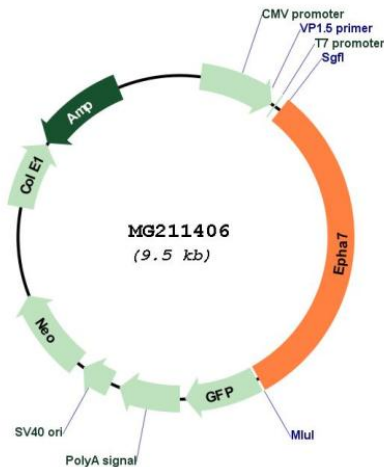
TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:


ACCN: BC026153

ORF Size: 2982 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: [BC026153.1](#)

RefSeq Size: 3554 bp

RefSeq ORF: 2984 bp

Locus ID: 13841

Cytogenetics: 4 12.42 cM

Gene Summary:

Receptor tyrosine kinase which binds promiscuously GPI-anchored ephrin-A family ligands 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. Among GPI-anchored ephrin-A ligands, EFNA5 is a cognate/functional ligand for EPHA7 and their interaction regulates brain development modulating cell-cell adhesion and repulsion. Has a repellent activity on axons and is for instance involved in the guidance of corticothalamic axons and in the proper topographic mapping of retinal axons to the colliculus. May also regulate brain development through a caspase(CASP3)-dependent proapoptotic activity. Forward signaling may result in activation of components of the ERK signaling pathway including MAP2K1, MAP2K2, MAPK1 AND MAPK3 which are phosphorylated upon activation of EPHA7. Isoform 4 which lacks the kinase domain may regulate isoform 1 adhesive properties.[UniProtKB/Swiss-Prot Function]