

Product datasheet for MR211403

Ephb3 (NM_010143) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ephb3 (NM_010143) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ephb3
Synonyms:	AW456895; Cek10; Etk2; HEK2; MDK5; Sek4; Tyro6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR211403 representing NM_010143 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCGGAGCCCGCCCGCCGGGGCTTCTGCCGCTGCTCGCTCCGCTGCTGCTGCCGCTGCTGCTTC
CCGCCGGTCTGGGCGCTGGAAGAGACTCTCATGGACACGAAATGGGTGACGTCTGAGCTGGCATGGAC
ATCTCATCCAGAGAGTGGGTGGGAAGAAGTAAGCGGCTATGATGAAGCCATGAATCCTATCCGCACGTAT
CAGGTGTGTAATGTGCGTGAGTCGAGCCAGAACAAGTGGCTGCGGACGGGTTTCATCTGGCGCGGGGAAG
TCCAGCGGTCTACGTGGAGCTGAAGTTCACCGTAAGAGACTGTAACAGCATTCCAACATCCCTGGCTC
CTGCAAGGAAACCTTCAACCTTTTCTACTACGAGGCTGATAGCGATGTGGCCTCAGCCTCCTCTCCCTTC
TGGATGGAGAACCCTACGTGAAAGTGGACACCATTGCGCCAGATGAGAGCTTCTCGCGGCTCGATGCCG
GGCGTGTCAACACCAAGGTGCGCAGCTTCGGGCGCTTTCCAAGGCTGGCTTCTACTTGGCCTTCCAGGA
CCAAGGTGCCTGCATGTCACTCATCTGTGCGTGCCTTCTACAAGAAGTGTGCATCCACCCTGCAGGC
TTCGCACTCTTCCCGAGACCCTCACGGGGCTGAGCCCACTTCGCTGGTCAATGCCCCGGCACCTGCA
TCGCTAACGCTGTGGAGGTCTCTGTACCACTCAAGCTCTACTGCAATGGCGACGGGGAGTGGATGGTGCC
CGTCGGTGCCTGCACCTGCGCTACTGGCCATGAGCCAGCCGCCAAGGAGTCCCAGTGCCGTGCCTGTCTCT
CCTGGGAGTTACAAAGCAAAGCAAGGAGAAGGGCCCTGCCTCCCTGTCCCCCAATAGCCGACCACTC
CGCCGGCTGCCAGCATCTGCACCTGCCATAATAACTTCTACCGTGCAGACTCAGACTCGCCGACAGCGC
CTGCACCACGGTGCCATCTCCACCCCGGGTGTGATCTCCAATGTGAATGAGACCTCGCTAATCCTCGAA
TGGAGTGAGCCCCGGGACCTTGGCGGACGAGATGACCTCCTTTATAATGTTATCTGCAAGAAGTGGCGTG
GGAGCTCTGGGCTGGGGTCCGGCAACCTGTTACGCTGCGATGACAACGTAGAGTTTGTACCTCGGCA
GCTGGGCTGACAGAGCGCCGGTCCACATTAGCCACCTGTTGGCCACACACGCTACACCTTTGAGGTG
CAGGCTGTCAACGGTGTCTCAGGCAAAGCCCTTTGCCACCCGCTATGCAGCTGTAATATCACCACCA
ACCAGGCTGCTCCATCAGAAGTGCCTACACTCCACCTGCACAGCAGCTCGGGGAGCAGCCTGACCCTGTC
CTGGGCACCCCGAGCGGCCTAATGGAGTCATCTGGACTATGAGATGAAGTACTTTGAGAAGAGTAAA



[View online >](#)

GGCATCGCTCCACTGTAACCAGCCAGAAGAACTCCGTACAACCTGGACGGGCTGCAGCCTGATGCCCGCT
 ACGTAGTTCAGGTCCGGGCTCGCACAGTAGCGGGTTACGGACAGTATAGCCACCCGGCTGAGTTTGAGAC
 CACAAGTGAAAGAGGTTTCAAGTCCAGGCTCAAGAACAGCTTCCCCTGATTGTGGGATCCACCGTA
 GCCGGGTTTGTCTTATGGTGGTCTGCTGGTTCATCGCTCTTGTCTGCCTCAGGAAGCAGCGCCATGGCC
 CCGATGCAGAATACACAGAGAAGCTGCAGCAATACATTGCTCCTGGGATGAAAGTTTACATTGACCCCTT
 TACCTATGAGGATCCCAATGAGGCCGTCGAGAGTTTCCCAAGGAGATCGATGTCTCTGTGTCAAGATC
 GAGGAGGTGATTGGAGCTGGGGAGTTTGGGGAAGTGTCCGGGGTTCGACTGAAACTGCCCGCCCGGGG
 AGGTGTTCTGTTGCTATCAAGACGCTGAAGGTGGGATACACGGAGAGGCAGCGGGGACTTCTTAAGTGA
 GGCTTCCATTATGGGTGAGTTTACCATCCCAATAATAATCCGTCTAGAGGGTGTGGTCACCAAAAGTCGT
 CCAGTCATGATCCTCACTGAGTTCATGGAGAAGTGTGCCCTGGACTCCTTTCTACGGCTCAATGACGGAC
 AGTTCACGGTTCACAGCTTGTGGGCATGTTACGAGGCATTGCTGCTGGCATGAAGTACTTGTCTGAGAT
 GAACTACGTGCACCGTGACCTTGTGCCGAAACATCCTTGTCAACAGCAACTTGGTCTGCAAAGTCTCT
 GACTTTGGCCTCTCCCGTCTTCTGGAGGATGACCCATCAGACCCACCTACACCAGCTCCCTGGGTGGGA
 AGATCCCTATCCGCTGGACCGCCCGGAGGCCATAGCCTATCGGAAGTTTACGTCTGCCAGCGATGTCTG
 GAGCTATGGGATTGTCTGTGGGAGTTCATGAGCTACGGAGAGCGACCCTACTGGGATATGAGCAACCAG
 GATGTCTAATGCTGTAGAGCAAGACTATCGGTTACCACCCCATGGACTGCCACCCGCGCTGCACC
 AGCTCATGCTGGACTGTTGGGTGCGGGACCGGAACCTCAGGCCCAAGTCTCTCAAAATCGTCAACACACT
 AGACAACTTATCCGCAATGCTGCCAGCCTCAAGGTACCGCCAGTGCCCATCTGGCATGTCCCAGCCC
 CTCCTGGACCGCACAGTCCCAGATTATACGACCTTACGACAGTGGGTGACTGGCTAGATGCCATCAAGA
 TGGGGAGGTATAAAGAGAGCTTTGTCTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT
 AGAAGATCTGCTAAGGATTGGGGTCACTTTGGCTGGGCACCAAGAAGAATCCTCTGCAGTATCCAGGAC
 ATGCGGCTGCAGATGAACCAGACCCTGCCTGTGCAGGTC

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR211403 representing NM_010143
 Red=Cloning site Green=Tags(s)

MAGARPPPGLLPLLAPLLLPLLLPAGCWALEETLMDTKWVTSELAWTSHPESGWEEVSGYDEAMNPIRTY
 QVCNVRESSQNNWLRTGFIWRREVQRVYVELKFTVRDCNSIPNIPGSCKETFNLFYEADSDVASASSPF
 WMENPYVKVDTIAPDESFSRLDAGRVTNKVRSFGLSKAGFYLAHQDQGCMSLISVRAFYKCASTTAG
 FALFPETLTGAETSLVIAPGTCIANAVEVSVPLKLYCNGDGEWMPVVGACTCATGHEPAAKESQCRACP
 PGSYKAKQGEPLPCPPNSRTTSPAASICTCHNNFYRADSDSADSACTTVPSPRPGVISNVNETSLILE
 WSEPRDLGGRDILLYNVICCKCRGSSGAGGPATCSRCDNVEFVPRQLGLTERRVHISHLLAHTRYTFEV
 QAVNGVSGKSPLPPRYAAVNITNQAAPSEVPTLHLHSSGSSLTWSWAPPERPNGVILDYEMKYFEKSK
 GIASTVTSQKNSVQLDGLQPDARYVVQVRARTVAGYGYSHPAEFETTSERGSQAQLQEQLPLIVGSTV
 AGFVFMVVVVVIALVCLRKQRHGPDAEYTEKLQYIAPGMKVYIDPFTYEDPNEAVREFAKEIDVSCVKI
 EEVIGAGEFGEVCRGRLKLPGRREVFAIKTLKVGYTERQRRDFLSEASIMGQFDHPNIIIRLEGVVTCSR
 PVMILTEFMENCALDSFLRLNDGQFTVIQLVGMLRGLIAAGMKYLSEMNYVHRDLAARNILVNSNLVCKVS
 DFGLSRFLEDDPSDPTYTSSLGGKIPIRWTAPEAIAYRKFTSASDVWSYGIWMWEVMSYGERPYWDSNQ
 DVINAVEQDYRLPPMDCPTALHQLMLDCWVRDRNLRPKFSQIVNTLDKLRNAASLKVTAAPSGMSQP
 LLDRTVPDYTTFTTVDWLDIAIKMGRYKESFVGFASFDLVAQMTAEDLLRIGVTLAGHQKILCSIQD
 MRLQMNQTLPVQV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mm9009_c07.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_010143

ORF Size: 2979 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_010143.1](#), [NP_034273.1](#)

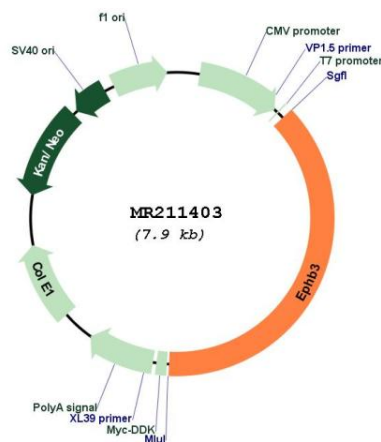
RefSeq Size: 4164 bp

RefSeq ORF: 2982 bp

Locus ID: 13845
UniProt ID: [P54754](#)
Cytogenetics: 16 B1
MW: 110.1 kDa

Gene Summary: Receptor tyrosine kinase which binds promiscuously transmembrane ephrin-B 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. Generally has an overlapping and redundant function with EPHB2. Like EPHB2, functions in axon guidance during development regulating for instance the neurons forming the corpus callosum and the anterior commissure, 2 major interhemispheric connections between the temporal lobes of the cerebral cortex. In addition to its role in axon guidance plays also an important redundant role with other ephrin-B receptors in development and maturation of dendritic spines and the formation of excitatory synapses. Controls other aspects of development through regulation of cell migration and positioning. This includes angiogenesis, palate development and thymic epithelium development for instance. Forward and reverse signaling through the EFNB2/EPHB3 complex also regulate migration and adhesion of cells that tubularize the urethra and septate the cloaca. Finally, plays an important role in intestinal epithelium differentiation segregating progenitor from differentiated cells in the crypt.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR211403