

Product datasheet for **RC208364**

Eph receptor B3 (EPHB3) (NM_004443) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Eph receptor B3 (EPHB3) (NM_004443) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Eph receptor B3
Synonyms:	EK2; ETK2; HEK2; TYRO6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC208364 representing NM_004443 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCAGAGCCCGCCCGCCCGCCCGCTCGCCCGCCGGGGCTTCTGCCGCTGCTCCCTCCGCTGC
TGCTGCTGCCGCTGCTGCTGCTGCCCGCCGGCTGCCGGCGCTGGAAGAGACCCTCATGGACACAAAATG
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GCCATGAATCCCATCCGCACATACCAGGTGTGTAATGTGCGCGAGTCAAGCCAGAACAATGGCTTCGCA
CGGGTTCATCTGGCGGGGATGTGCAGCGGGTCTACGTGGAGCTCAAGTTCAGTGTGCGTGACTGCAA
CAGCATCCCCAACATCCCGGCTCCTGCAAGGAGACCTTCAACCTTTCTACTACGAGGCTGACAGCGAT
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TGAATATACCACAAACCAGGCTGCCCCGTCTGAAGTGCCACACTACGCTGCACAGCAGCTCAGGCAG
CAGCCTACCCTATCCTGGGCACCCCGAGAGCGGCCCAACGGAGTCATCCTGGACTACGAGATGAAGTAC



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TTTGAGAAGAGCGAGGGCATCGCCTCCACAGTGACCAGCCAGATGAACTCCGTGCAGCTGGACGGGCTTC
 GCCTGACGCCCGCTATGTGGTCCAGGTCGGTCCCGCACAGTAGCTGGCTATGGGCAGTACAGCCGCC
 TGCCGAGTTTGTAGACCACAAGTGAGAGAGGCTCTGGGGCCAGCAGCTCCAGGAGCAGCTTCCCCTCATC
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Protein Sequence:

>RC208364 representing NM_004443
 Red=Cloning site Green=Tags(s)

MARARPPPPSPPPGLLPLLPPLLLLPLLLLPAICRALEETLMDTKWVTSSELAWTSHPEGWEEVSGYDE
 AMNPIRTYQVCNVRESSQNNWLRGFIWRRDVQRVYVELKFTVRDCNSIPNIPGSCKETFNLFYFEADSD
 VASASSPFWMENPYVKVDIAPDESFRLDAGRVTNKVRSFGLSKAGFYLAFAQDQACMSLISVRFYK
 KCASTTAGFALFPETLTGAEPTSLVIAPGTCIPNAVEVSVPLKLYCNGDGEWMPVVGACTCATGHEPAK
 ESQCRPCPPGSYKAKQEGEPLPCPPNSRTTSPAASICTCHNNFYRADSADSACTTVPSPRGVINSV
 NETSLILEWSEPRDLGGRDILLYNVICKKCHGAGGASACSRDDNVEFVPRQLGLTERRVHISHLAHTR
 YTFEVQAVNGVSGKSPLPPRYAAVNITNQAAPSEVPTLRLHSSSGSSLTWSWAPPERPNGVILDYEMKY
 FEKSEGIASVTVMNSVQLDGLRPDARYVVQVRARTVAGYQYSRPAEFETTSERGSQAQLQEQLPLI
 VGSATAGLVFVAVVVIIVCLRKQRHGSSEYTEKLQYIAPGMKVYIDPFTYEDPNEAVREFAKEIDV
 SCVKIEEVIGAGEFGEVCRGRLKQGRREVFVAIKTLKVGYTEQRDFLSEASIMGQFDHPNIIIRLEGV
 VTKSRPMILTEFMENCALDSFLRLNDGQFTVIQLVGMLRGAAGMKYLSMNYVHRDLAARNILVNSNL
 VCKVSDVGLSRFLEDDPSDPTYTSSLGGKIPIRWTAPEAIAYRKFTSASDVWVSYGIMWVMSYGERPYW
 DMSNQDVINAVEQDYRLPPMDCPTALHQLMLDCWVRDRNLRPKFSQIVNTLDKLRNAASLKVIASQ
 GMSQPLLDRTVPDYTTFTTVGDWLDIAIKMGYKESFVSAGFASFDLVAQMTAEDLLRIGVTLAGHQKIL
 SSIQDMRLQMNQTLPVQV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg2583_f09.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_004443

ORF Size: 2994 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_004443.4](#)

RefSeq Size: 4234 bp

RefSeq ORF: 2997 bp

Locus ID: 2049

UniProt ID: [P54753](#)

Cytogenetics: 3q27.1

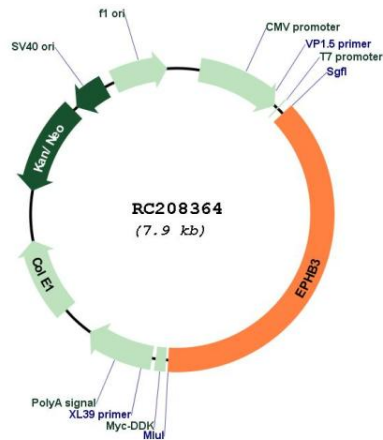
Protein Families: Druggable Genome, Protein Kinase, Transmembrane

Protein Pathways: Axon guidance

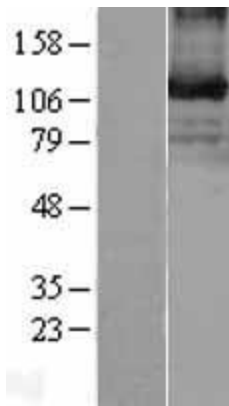
MW: 110.33 kDa

Gene Summary: Ephrin receptors and their ligands, the ephrins, mediate numerous developmental processes, particularly in the nervous system. Based on their structures and sequence relationships, ephrins are divided into the ephrin-A (EFNA) class, which are anchored to the membrane by a glycosylphosphatidylinositol linkage, and the ephrin-B (EFNB) class, which are transmembrane proteins. The Eph family of receptors are divided into two groups based on the similarity of their extracellular domain sequences and their affinities for binding ephrin-A and ephrin-B ligands. Ephrin receptors make up the largest subgroup of the receptor tyrosine kinase (RTK) family. This gene encodes a receptor for ephrin-B family members. [provided by RefSeq, Mar 2010]

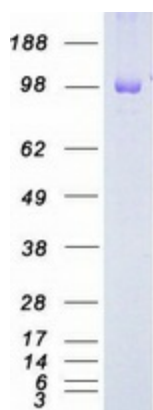
Product images:



Circular map for RC208364



Western blot validation of overexpression lysate (Cat# [LY401410]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208364 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified EPHB3 protein (Cat# [TP308364]). The protein was produced from HEK293T cells transfected with EPHB3 cDNA clone (Cat# RC208364) using MegaTran 2.0 (Cat# [TT210002]).