

Product datasheet for **RC223219**

Eph receptor B2 (EPHB2) (NM_017449) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Eph receptor B2 (EPHB2) (NM_017449) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Eph receptor B2
Synonyms:	BDPLT22; CAPB; DRT; EK5; EPHT3; ERK; Hek5; PCBC; Tyro5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC223219 representing NM_017449 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTCTGCGGAGGCTGGGGCCGCGTCTGCTGCTGCCGCTGCTCGCCGCCGTGGAAGAAACGCTAA
TGGACTCCACTACAGCGACTGCTGAGCTGGGCTGGATGGTGCATCCTCCATCAGGGTGGGAAGAGGTGAG
TGGCTACGATGAGAACATGAACACGATCCGCACGTACCAGGTGTGCAACGTGTTTGAAGTCAAGCCAGAAC
AACTGGCTACGGACCAAGTTTATCCGGCCCGTGGCGCCACCGCATCCACGTGGAGATGAAGTTTTCGG
TGGCTGACTGCAGCAGCATCCCCAGCGTGCCTGGCTCCTGCAAGGAGACCTTCAACCTCTATTACTATGA
GGCTGACTTTGACTCGGCCACCAAGACCTTCCCCAACTGGATGGAGAATCCATGGGTGAAGGTGGATACC
ATTGCAGCCGACGAGAGCTTCTCCAGGTGGACCTGGGTGGCCGCGTCATGAAAAACAACACCGAGGTGC
GGAGCTTCGGACCTGTGTCCCGCAGCGGCTTCTACCTGGCCTTCCAGGACTATGGCGGCTGCATGTCCCT
CATCGCCGTGCGTGTCTTACCAGCAAGTGCCCCGCATCATCCAGAATGGCGCCATCTTCCAGGAAACC
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TCTGCCGCAATGGCTACTACAGAGCAGACCTGGACCCCTGGACATGCCCTGCACAACCATCCCCTCCGC
GCCCCAGGCTGTGATTTCCAGTGTCAATGAGACCTCCCTCATGCTGGAGTGGACCCTCCCCGCGACTCC
GGAGGCCGAGAGGACCTCGTCTACAACATCATCTGCAAGAGCTGTGGCTCGGGCCGGGTGCCTGCACCC
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CCTGCTGGCCACACCCAGTACACCTTCGAGATCCAGGCTGTGAACGGCGTTACTGACCAGAGCCCTTC
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AACACGGTCACCGTGCAGGGCCTCAAAGCCGGCGCCATCTATGTCTTCCAGGTGCGGGCAGCACCCTGG
 CAGGCTACGGGCGCTACAGCGGCAAGATGTACTTCCAGACCATGACAGAAGCCGAGTACCAGACAAGCAT
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 ATTCAGTCTGTGGAGTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGAT AAGTTTAA

Protein Sequence:

>RC223219 representing NM_017449
 Red=Cloning site Green=Tags(s)

MALRRLGAALLLLPLLA VEETLMDSTTATAELGWMVHPPSGWEEVSGYDENMNTIRTYQVCNVFESSQN
 NWLRTKFIRRRGAHRIHVEMKFSVRDCSSIPSVPGSCKETFNLYYYEADFD SATKTFPNWMENPWVKVDT
 IAADESFQVDLGGVMKINTEVRSFGPVSRSGFYLA FQDYGGCMLIAVRV FYRKPRIIQNGAIFQET
 LSGAESTSLVAARGSCIANAEVDVPIKLYCNGDGEWL VPIGRMCKAGFEAVENGTVCRGCPSTGFKAN
 QGDEACTHCPINSRTTSEGATNCVCRNGYYRADLDPLDMPCTTIPSAPQAVISSVNETSLMLEWTPPRDS
 GGREDLVYNIICKSCGSGRGACTRCGDNVQYAPRQLGLTEPRIYISDLLAHTQYTFEIQAVNGVTDQSPF
 SPQFASVNITTNQAAPS AVSIMHQVSRTVDSITLSWSQPDQPNGVILDYELQYYEKELSEYNATAIKSPT
 NTVTVQGLKAGAIYVFQVRARTVAGYGRYSKMYFQTMTEAEYQTSIQEKLPLIIGSSAAGLVFLIAVVV
 IAIVCNRGRFERADSEYTDKLQHYTSGHMTPGMKIYIDPFTYEDPNEAVREFAKEIDISCVKIEQVIGAG
 EFGEVCSGHLKLPKREIFVAIKTLKSGYTEKQRRDFLSEASIMGQFDHPNVIHLEGVVTKSTPVMITE
 FMENGLSDFLRQNDGQFTVIQLVGMLRGIAAGMKYLADMNYVHRDLAARNILVNSNLVCKVSDFLSRF
 LEDDTSPTYTSALGGKIPIRWTAPEAIQYRKFTSASDVWSYGI VMWEVMSYGERPYWDMNQDVINAIE
 QDYRLPPPMDCP SALHQLMLDCWQKDRNHRPKFGQIVNTLDKMIRNPNSLKAMAPLSSGINLPLLDRTIP
 DYTSFNTVDEWLEAIKMGQYKESFANAGFTSFDVVSQMMMEDILRVGVTLAGHQKKILNSIQVMRAQMNQ
 IQSVEV

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_017449

ORF Size: 689 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.

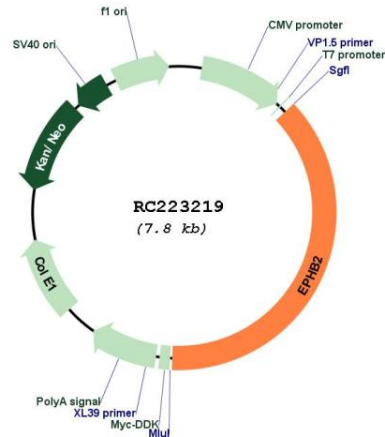
RefSeq: [NM_017449.4](#)

RefSeq Size: 4641 bp

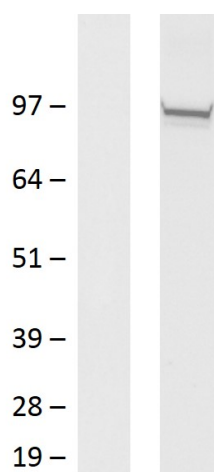
RefSeq ORF:	2961 bp
Locus ID:	2048
UniProt ID:	P29323
Cytogenetics:	1p36.12
Domains:	pkinase, EPH_lbd, TyrKc, SAM, S_TKc, FN3
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Axon guidance
MW:	109.87 kDa

Gene Summary: This gene encodes a member of the Eph receptor family of receptor tyrosine kinase transmembrane glycoproteins. These receptors are composed of an N-terminal glycosylated ligand-binding domain, a transmembrane region and an intracellular kinase domain. They bind ligands called ephrins and are involved in diverse cellular processes including motility, division, and differentiation. A distinguishing characteristic of Eph-ephrin signaling is that both receptors and ligands are competent to transduce a signaling cascade, resulting in bidirectional signaling. This protein belongs to a subgroup of the Eph receptors called EphB. Proteins of this subgroup are distinguished from other members of the family by sequence homology and preferential binding affinity for membrane-bound ephrin-B ligands. Allelic variants are associated with prostate and brain cancer susceptibility. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2015]

Product images:



Circular map for RC223219



Western blot validation of overexpression lysate (Cat# [LY413748]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223219 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).