

Product datasheet for **RC600048**

Eph receptor B1 (EPHB1) (NM_004441) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Eph receptor B1 (EPHB1) (NM_004441) Human Tagged ORF Clone
Tag:	DDK-His
Symbol:	Eph receptor B1
Synonyms:	ELK; EPHT2; Hek6; NET
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5-DDK-His (PS100068)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RC600048 representing leader sequence plus the extracellular domain region of NM_004441
 Red=Cloning site Blue=ORF Green=Tags(s)

GTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCTGGTACCGAGGAGATCCGCCGCCG
 CGATCGCC

ATGGCCCTGGATTATCTACTACTGCTCCTCCTGGCATCCGCAGTGGCTGCGATGGAAGAAACGTTAATGG
 ACACCAGAACGGCTACTGCAGAGCTGGGCTGGACGGCCAATCCTGCGTCCGGGTGGGAAGAAGTCAGTGG
 CTACGATGAAAACCTGAACACCATCCGCACCTACCAGGTGTGCAATGTCTTCGAGCCCAACCAGAACAAT
 TGGCTGCTCACCACCTTCATCAACCGCGGGGGGCCCATCGCATCTACACAGAGATGCGCTTCACTGTGA
 GAGACTGCAGCAGCCTCCCTAATGTCCCAGGATCTGCAAGGAGACCTTCAACTTGTATTACTATGAGAC
 TGACTCTGTCATTGCCACCAAGAAGTCAGCCTTCTGGTCTGAGGCCCCCTACCTCAAAGTAGACACCATT
 GCTGCAGATGAGAGCTTCTCCAGGTGGACTTTGGGGAAAGGCTGATGAAGGTAACACAGAAGTCAGGA
 GCTTTGGGCTTACTCGGAATGGTTTTACCTCGCTTTCAGGATTATGGAGCCTGTATGTCTCTTCT
 TTCTGTCCGTGTCTTCTCAAAAAGTGTCCAGCATTGTGCAAAAATTTGCAAGTGTTCAGAGACTATG
 ACAGGGGCAGAGACACATCTCTGGTGATTGCTCGGGGCACATGCATCCCAACGCAGAGGAAGTGGACG
 TGCCCATCAAACCTACTGCAACGGGGATGGGGAATGGATGGTGCCTATTGGGCGATGCACCTGCAAGCC
 TGGCTATGAGCCTGAGAACAGCGTGGCATGCAAGGCTTGCCTGCAGGGACATCAAGGCCAGCCAGGAA
 GCTGAAGGCTGCTCCACTGCCCTCCAACAGCCGCTCCCTGCAGAGGCGTCTCCCATCTGCACCTGTC
 GGACCGTTATTACCGAGCGGACTTTGACCCTCCAGAAGTGGCATGCACTAGCGTCCCATCAGGTCCCCG
 CAATGTTATCTCCATCGTCAATGAGACGTCCATCATTCTGGAGTGGCACCCCTCCAAGGGAGACAGGTGGG
 CGGGATGATGACCTACAACATCATCTGCAAAAAGTCCGGGCGAGACCGCCGGAGCTGCTCCCGCTGTG
 ACGACAATGTGGAGTTTGTGCCAGGCAGCTGGGCTGACGGAGTGCCGGTCTCCATCAGCAGCCTGTG
 GGCCACACCCCTACACCTTTGACATCCAGGCCATCAATGGAGTCTCCAGCAAGAGTCCCTTCCCCCA
 CAGCAGTCTCTGTAACATCACCACAAACCAAGCCGCCCTCCACCGTCCCATCATGCACCAAGTCA
 GTGCCACTATGAGGAGCATCACCTTGTGATGGCCACAGCCGGAGCAGCCCAATGGCATCATCTGGACTA
 TGAGATCCGGTACTATGAGAAGGAACACAATGAGTTCAACTCCTCCATGGCCAGGAGTCAGACCAACACA
 GCAAGGATTGATGGCTGCGGCCTGGCATGGTATATGTGGTACAGGTGCGTGCCCGCACTGTTGCTGGCT
 ACGGCAAGTTCAGTGGCAAGATGTCTCCAGACTCTGACTGACGATGATTACAAGTCAGAGCTGAGGGA
 GCAGCTGCC

ACGCGTTCAGGGGACTACAAGGATGACGACGATAAGGGATCTCATCATCACCATCACCATTAATGAGATC
 TGGTACCGATATCAAGCTTGTGACTCTAGA

Protein Sequence:

>RC600048 representing signal peptide plus the extracellular domain region of NM_004441
 Red=Cloning sites Green= DDK and 6XHIS Tags

MALDYLLLLLLASAVAAMEETLMDTRTATAELGWTANPASGWEEVSGYDENLNTIRTYQVCNVFEPNQNN
 WLLTTFINRRGAHRIYTEMRFVTRDCSSLPNVPGSCKETFNLYYYETDSVIATKKSFAWSEAPYLKVDTI
 AADESFSQVDFGGRLMKVNTEVRSFGLTRNGFYLAQDYGACMSLLSVRVFFKKCPSIVQNFVFPETM
 TGAESTSLVIARGTCIPNAEEVDVPIKLYCNGDGEWMVPIGRCTCKPGYEPENSACKACAPAGTFKASQE
 AEGCSHCPSNSRPAEASPICTCRTGYRADFPPEVACTSVPSGPRNVIIVNETSIILEWHPPRETGG
 RDDVTYNIICKCRADRRSCSRDDNVEFVPRQLGLTECRVSISSLWAHTPYTFDIQAINGVSSKSPFPF
 QHVSVNITTNQAAPSTVPIHQVSATMRSITLSWPQPEQPNGIILDYEIRYYEKEHNEFNSSMARSQTNT
 ARIDGLRPGMVYVQVRARTVAGYGKFSGKMCFTLTDYKSELREQLP

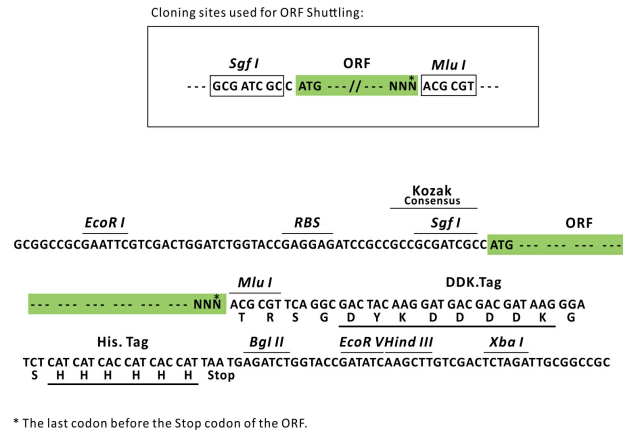
TRSGTRSGDYKDDDDKGSHHHHH

Chromatograms:

https://cdn.origene.com/chromatograms/mk8117_g01.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_004441

ORF Size: 1620 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 extra cellular domain of the protein 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_004441.4](#), [NP_004432.1](#)

RefSeq Size: 4691 bp

RefSeq ORF: 2955 bp

Locus ID: 2047

UniProt ID: [P54762](#)

Cytogenetics: 3q22.2

Domains:	pkinase, EPH_lbd, TyrKc, SAM, S_TKc, FN3
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Axon guidance
MW:	60.2 kDa
Gene Summary:	<p>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 2 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. The protein encoded by this gene is a receptor for ephrin-B family members. [provided by RefSeq, Jul 2008]</p>