

## Product datasheet for **SC323544**

### Eph receptor B4 (EPHB4) (NM\_004444) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Eph receptor B4 (EPHB4) (NM_004444) Human Untagged Clone
Tag:	Tag Free
Symbol:	Eph receptor B4
Synonyms:	CMAVM2; HFASD; HTK; LMPHM7; MYK1; TYRO11
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC323544 sequence for NM_004444 edited (data generated by NextGen Sequencing)

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ATGGAGTCCGGTGCTGCTCTGCTGGGCTTCGTTGGCCGACGCTTTGGAAGAGACCCTG
CTGAACACAAAATTGAAACTGCTGATCTGAAGTGGGTGACATTCCTCAGGTGGACGGG
CAGTGGGAGGAACTGAGCGGCCTGGATGAGGAACAGCACAGCGTGCCACCTACGAAGTG
TGTGACGTGCAGCGTGCCCGGGCCAGGCCACTGGCTTCGCACAGGTTGGGTCCACGG
CGGGGCGCGTCCACGTGTACGCCACGCTGCGCTTACCATGCTCGAGTGCCTGTCCCTG
CCTCGGGTGGGCGCTCTGCAAGGAGACCTTACCCTTCTACTATGAGAGCGATGCG
GACACGGCCACGGCCCTACGCCAGCCTGGATGGAGAACCCTACATCAAGGTGGACACG
GTGGCCGCGGAGCATCTACCCGGAAGCGCCCTGGGCGGAGGCCACCGGAAGGTGAAT
GTCAAGACGCTGCGTCTGGGACCGCTCAGCAAGGCTGGCTTCTACCTGGCCTTCCAGGAC
CAGGGTGCTGCATGGCCCTGCTATCCCTGCACCTTCTACAAAAAGTGCGCCACGCTG
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GCAGCTGAGGGGAACACCAAGTCCCAGCCTGTGCCAGGGCACCTCAAGCCCCGTCA
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CCCGGCCCGGGACCTGGTGGAGCCCTGGGTGGTGGTTTCGAGGGCTACGTCCTGACTTC
ACCTATACCTTTGAGGTCACTGCATTGAACGGGTATCCTCCTTAGCCACGGGGCCCGTC
CCATTTGAGCCTGTCAATGTCACCACTGACCGAGAGGTACCTCCTGCAGTGTCTGACATC
CGGGTACGCGGTCTCACCCAGCAGCTTGAGCCTGGCCTGGGCTGTTCCCGGGCACCC
AGTGGGGTGTGCTGGACTACGAGGTCAAATACCATGAGAAGGGCGCCGAGGGTCCCAGC
AGCGTGCGGTTCTGAAGACGTCAGAAAACCGGGCAGAGCTGCGGGGCTGAAGCGGGGA

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GCCAGCTACCTGGTGCAGGTACGGGCGCGCTCTGAGGCCGGCTACGGGCCCTTCGGCCAG
GAACATCACAGCCAGACCCAAGTGGATGAGAGCGAGGGCTGGCGGGAGCAGCTGGCCCTG
ATTGCGGGCAGCGCAGTCGTGGGTGTGGTCTCTGGTCTGGTGGTCAATGTGGTTCGAGTT
CTCTGCCCTCAGGAAGCAGAGCAATGGGAGAGAAGCAGAATATTCGGACAAACACGGACAG
TATCTCATCGGACATGGTACTAAGGTCTACATCGACCCCTTCACTTATGAAGACCCTAAT
GAGGCTGTGAGGGAATTTGCAAAAAGAGATCGATGTCTCCTACGTCAAGATTGAAGAGGTG
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GGCGTGGTCACCAACAGCATGCCCGTCATGATTCTCACAGAGTTCATGGAGAACGGCGCC
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CCCGCCAGCCTCAAAATCGTGGCCCGGGAGAATGGCGGGGCTCACACCTCTCCTGGAC
CAGCGGCAGCCTCACTACTCAGCTTTTGGCTCTGTGGGCGAGTGGCTTCGGGCCATCAA
ATGGGAAGATACGAAGAAAGTTTCGAGCCGCTGGCTTTGGCTCCTTCGAGCTGGTCAGC
CAGATCTCTGCTGAGGACCTGCTCCGAATCGGAGTCACTCTGGCGGGACACCAGAAGAAA
ATCTTGGCCAGTGTCCAGCACATGAAGTCCCAGGCCAAGCCGGGAACCCCGGGTGGGACA
GGAGGACCGGCCCGCAGTACTGA
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Clone variation with respect to NM\_004444.4  
1890 c=>t;1940 a=>t

**5' Read Nucleotide Sequence:**

>OriGene 5' read for mutant NM\_004444 unedited  
CCGCCGTTTGGCAACTGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAATCAGAGCTCATATAGGCT  
GACACTATAGAATACAAGCTACTAGTTCTTTTTGCAGCGCCCGCAATCGGCACGAGGCCCGGTGCCCG  
CACGCTCGCATGGGCCCGCTGAGGGCCCGACGAGGAGTCCCGCGCGGAGTATCGCGCTCCACCCGCC  
CAGGGAGAGTCAGACCTGGGGGGCGAGGGCCCCCAACTCAGTTCATCCTACCCGATGATGCGCGCCA  
TGGAGCTCCGGTCTGCTCTGCTGGGCTTCGTTGGCCGGGGCGTTTGAACAAACGCGGTATTTTTTGTG  
AGTGAAGCTGCGAATCGAAGGGGAGTGACCCCCAGCAGTTGAACGGCAAATGGGAGGAGCAGAAACGC  
CAGGATAGAACA

**Kinase Domain Sequence:**

>SC323544 kinase domain raw sequence. By performing [BLASTX](#) analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation  
TAGTGATTGGTGCAGGAGTTTGGCGAGGTGTGTCGGGGGCGGCTCAAGGCCCCAGGGAAGAAGGAGAGCT  
GTGTGGCAATCATGACCCCTGAAGGGTGGCTACACGGAGCGGCAGCGCGTGTGATTTCTGAGCGAGGCCTC  
CATCATGGCCAGTTCGAGCACCCCAATATCATCCGCTGGAGGGCGTGGTCACCAACAGCATGCCCGTC  
ATGATTCTCACAGAGTTCATGGAGAACGGCGCCCTGGACTCCTTC

**Restriction Sites:**

Please inquire

**ACCN:**

NM\_004444

**Insert Size:**

4700 bp

<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." <a href="#">Cell. 2008 May p536-548.</a>
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_004444.4</a> , <a href="#">NP_004435.3</a>
<b>RefSeq Size:</b>	4369 bp
<b>RefSeq ORF:</b>	2964 bp
<b>Locus ID:</b>	2050
<b>UniProt ID:</b>	<a href="#">P54760</a>
<b>Cytogenetics:</b>	7q22.1
<b>Domains:</b>	pkinase, EPH_lbd, TyrKc, SAM, S_TKc, FN3
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transmembrane
<b>Protein Pathways:</b>	Axon guidance
<b>Gene Summary:</b>	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 binds to ephrin-B2 and plays an essential role in vascular development. [provided by RefSeq, Jul 2008]