

## Product datasheet for MC222990

### Ephb4 (NM\_010144) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ephb4 (NM_010144) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ephb4
Synonyms:	AI042935; Htk; MDK2; Myk1; Tyro11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC222990 representing NM_010144 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGCTCCGAGCGCTGCTGTGCTGGGCTTCCCTCGCCACTGCTTTAGAAGAGACCCTGTTGAACACAA  
AACTGGAAACGGCGGATCTGAAATGGGTGACTTACCCTCAGGCAGAGGGCCAGTGGGAGGAGCTAAGCGG  
CCTGGATGAGGAACAGCACAGCGTCCGCACCTATGAGGTGTGCGACATGAAGCGTCCAGGGGCCAGGCT  
CACTGGCTGCGCACTGGTGGTCCCAAGGCGAGGTGCTGTCCACGTGTATGCCACGATACGCTTACCA  
TGATGGAATGCCTGTCCCTGCCGAGGGCCAGTCCGCTCCTGCAAGGAGACATTCAGTGTCTTCTATTACGA  
GAGCGAAGCTGATACGGCCACGGCCATACGCCCGCTGGATGGAGAACCCTACATCAAGTGGACACA  
GTGGCCGCGAAGCATCTGACTCGGAAGCGCCCTGGAGCTGAAGCCACAGGAAAGTAAATCAAGACGC  
TGCGCCTGGGTCTCTCAGCAAAGCTGGCTTCTACCTGGCTTCCAGGACCAAGGAGCCTGCATGGCTCT  
GCTCTCCCTGCATCTCTTTACAAGAAGTGCTCCTGGCTGATCACGAACCTTGACCTACTTCCCGGAGACG  
GTGCTCGGGAGCTCGTGGTGCCGGTGGCAGGTAGCTGCGTGGCCAACCGGGTCCCTACCGCCAACCCCA  
GCCCCAGCCTCTACTGCCGGAAGATGGTCAATGGGCTGAGCAGCAGGTACGGGCTGCAGCTGCGCGCC  
AGGGTACGAGGCTGCGGAAAGCAACAAAGTATGCAGAGCCTGTGGCCAGGGAACCTTCAAGCCCCAATA  
GGAGACGAGTCTGCCTGCCATGCCAGCCAACAGCCACTCGAATAACATTGGTCTCCTGTCTGCCTGT  
GTCGAATTGGGTATTACGGGCCCGCTCAGACCCCGGAGTTCACCTTGACTACCCACCTCTGCTCC  
AAGAAGCGTGGTTCACCATTTGAATGGTTCACCTGCGCCTGGAATGGAGTGTCCCTTGGTCCGGA  
GGCCGAGAGGACCTCACTATGCTGTACGCTGCCGAGAGTGCCGTCTGGGGTTCCTGCTTGCCTGTG  
GGGGCGACATGACCTTCGACCCCGGCTCTCGAGACCTGGTTGAGCCCTGGGTGGCAATCCGAGGGCTGCG  
TCCTGATGTCACCTATACCTTTGAGGTTGCTGCTTTGAATGGTGTGTCTACCTTAGCCACTGGACCCT  
CCTTTTGAGCCTGTCAATGTCACCACTGACCGTGAGGTGCCTCCTGCAGTGTCTGACATCCGAGTGACTC  
GGTCGTCACCCAGCAGCTTGATCCTGTCATGGGCTATCCCAGAGCACCCAGTGGGGCCGTGCTGGACTA  
CGAGGTCAGATCATGAGAAGGGCGCAGAGGGCCCCAGCAGTGTTCGTTTCTGAAGACATCAGAAAAC



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CGAGCTGAGCTCCGGGGCTGAAGCGGGGAGCCAGCTATCTGGTCCAGGTACGCGCACGGTCCGAGGCTG  
 GCTACGGTCCCTTCGGCCAGGAGCATCACAGTCAGACTCAACTGGATGAGAGCGAGAGCTGGCGGGAGCA  
 GCTGGCCCTGATTGCAGGCACTGCGGTTGTGGGTGTGGTCTGGTCTGGTGGTGCATCATTGCAGTT  
 CTCTGCCTCAGGAAGCAGAGCAATGGGAGGGAAGTTGAGTACTCGGATAAGCATGGGCAGTATCTCATCG  
 GGCACGGTACCAAGGTCTACATTGATCCTTTTACTTACGAAGACCCTAATGAGGCAGTGAGGGAATTTGC  
 CAAAGAGATCGATGTCTCTATGTCAAGATTGAAGAGTAATTGGTGCAGGTGAGTTCGGCGAGGTGTGC  
 CGGGTTCGGCTGAAGGCACCAGGAAAAAGGAGAGCTGTGTGGCCATCAAGACTCTGAAGGTGGCTACA  
 CCGAGCGCCAGAGGCGTGAGTTCCTGAGCGAGGCCTCCATCATGGGCCAGTTCGAGCATCCAACATCAT  
 CCGCCTCGAGGGCGTGGTACCAACAGTGTGCCGTTATGATCCTCACGGAATTCATGGAGAACGGAGCC  
 CTGGACTCCTTCTGCGGCTGAACGACGGGCGAGTTCACAGTCATCCAGCTGGTGGGCATGCTGAGGGGCA  
 TCGCCTCGGGCATGCGGTACCTGGCTGAAATGAGCTATGTCCACCGAGACCTGGCTGCTCGGAACATCTT  
 GGTCAACAGTAACCTGGTCTGCAAGGTGTCCGACTTTGGCCTCTCCAGATTCTTGAGGAGAACTCCTCT  
 GATCCCACCTACACAAGTTCCTGGGAGGCAAGATTCCCATCCGATGGACCGCCCTGAAGCCATTGCCT  
 TCAGGAAGTTCACCTCTGCCAGTATGCCTGGAGCTATGGGATCGTCATGTGGGAGGTATGTCTTTTGG  
 GGAACGGCCATACTGGGACATGAGCAACCAGGATGTGATCAATGCCATTGAACAGGACTACCGGCTGCCT  
 CCTCTCCAGACTGCCACCTCCTCCACCAGCTCATGTGGATTGTTGGCAGAAGGACCAGGAATGCC  
 GGCCCCGCTTTCCCAAGGTGGTACGCGCTCTGGACAAGATGATCCGGAATCCCGCTAGCCTCAAAATCGT  
 GGCCAGGGAGAATGGCGGGGCTCACATCCACTTTGGACCAACGGCAGCCTCACTATTCTGCTTTTCGGT  
 TCTGTGGCGAGTGGCTTCGAGCCATCAAGATGGGAAGATACGAGGAAAGTTTGCAGCGGCTGGATTTCG  
 GCTCCTTTGAGGTGGTCACTGAGTCTCTGCCGAGGACCTTCTCCGAATTGGAGTCACTCTGGCAGGACA  
 CCAGAAGAAAATCTTGGCCAGTGTGCAGCATATGAAGTCCAAGTAAGCCAGGAGCCCTGGTGGGACA  
 GGGGACCAGCCAGCAGTTCTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:**

Sgfl-Mlul

**ACCN:**

NM\_010144

**Insert Size:**

2964 bp

**OTI Disclaimer:**

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).

**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\\_010144.6](#), [NP\\_034274.4](#)

**RefSeq Size:**

4334 bp

**RefSeq ORF:**

2964 bp

Locus ID: 13846

UniProt ID: [P54761](#)

Cytogenetics: 5 G2

**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. Together with its cognate ligand/functional ligand EFNB2 it is involved in the regulation of cell adhesion and migration, and plays a central role in heart morphogenesis, angiogenesis and blood vessel remodeling and permeability. EPHB4-mediated forward signaling controls cellular repulsion and segregation from EFNB2-expressing cells.[UniProtKB/Swiss-Prot Function]  
Transcript Variant: This variant (2) uses an alternate in-frame splice site in the 5' coding region compared to variant 1. This results in a shorter protein (isoform b) compared to isoform a.