

## Product datasheet for MC223038

### Ephb4 (NM\_001159571) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ephb4 (NM_001159571) 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:	>MC223038 representing NM_001159571 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCCGCATCGCC

ATGGAGCTCCGAGCGCTGCTGTGCTGGGCTTCCCTCGCCACTGCTTTAGAAGAGACCCTGTTGAACACAA  
AACTGGAAACGGCGGATCTGAAATGGGTGACTTACCCTCAGGCAGAGGGCCAGTGGGAGGAGCTAAGCGG  
CCTGGATGAGGAACAGCACAGCGTCCGCACCTATGAGGTGTGCGACATGAAGCGTCCAGGGGGCCAGGCT  
CACTGGCTGCGCACTGGCTGGTCCCAAGGCGAGGTGCTGTCCACGTGTATGCCACGATACGCTTACCA  
TGATGGAATGCCTGTCCCTGCCGAGGGCCAGTCCGCTCCTGCAAGGAGACATTCAGTGTCTTATTACGA  
GAGCGAAGCTGATACGGCCACGGCCATACGCCCGCTGGATGGAGAACCCTACATCAAGTGGACACA  
GTGGCCGCGAAGCATCTGACTCGGAAGCGCCCTGGAGCTGAAGCCACAGGAAAGTAAATCAAGACGC  
TGCGCCTGGGTCTCTCAGCAAAGCTGGCTTCTACCTGGCTTCCAGGACCAAGGAGCCTGCATGGCTCT  
GCTCTCCCTGCATCTCTTTACAAGAAGTCTCCTGGCTGATCACGAACCTTGACCTACTTCCCGGAGACG  
GTGCTCGGGAGCTCGTGGTGCCGGTGGCAGGTAGCTGCGTGGCCAAACGGGTCCCTACCGCAACCCCA  
GCCCCAGCCTCTACTGCCGGAAGATGGTCAATGGGCTGAGCAGCAGGTACGGGCTGCAGCTGCGCGCC  
AGGGTACGAGGCTGCGGAAAGCAACAAAGTATGCAGAGCCTGTGGCCAGGAAACCTCAAGCCCCAATA  
GGAGACGAGTCTGCTGCCATGCCAGCCAACAGCCACTCGAATAACATTGGTCTCCTGTCTGCTGCTGT  
GTGCAATTGGGTATTACGGGCCCGCTCAGACCCCGGAGTTCACCTTGACTACCCACCTCTGCTCC  
AAGAAGCGTGGTTCACCATTTGAATGGTTCACCTGCGCCTGGAATGGAGTGTCCCTTGAGTCCGGA  
GGCCGAGAGGACCTCACTTATGCTGTACGCTGCCGAGAGTGCCGTCTGGGGTTCCTGCTTGCCTGTG  
GGGGCGACATGACCTTCGACCCCGTCTCGAGACCTGGTTGAGCCCTGGGTGGCAATCCGAGGGCTGCG  
TCCTGATGTCACCTATACCTTTGAGTTGCTGCTTTGAATGGTGTGTCTACCTTAGCCACTGGACCCT  
CCTTTGAGCCTGTCAATGTCACCACTGACCGTGAGGGGCGCATTGGGTTCTTTCTCCTGCAGTGCCTC  
CTGCAGTGTCTGACATCCGAGTACTCGGTGTCACCCAGCAGCTTGATCCTGTATGGGCTATCCCGAG  
AGCACCCAGTGGGCGCTGCTGGACTACGAGGTCAAGTATCATGAGAAGGGCGCAGAGGGCCCCAGCAGT



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GTTCGTTTCCTGAAGACATCAGAAAACCGAGCTGAGCTCCGGGGGCTGAAGCGGGGAGCCAGCTATCTGG  
 TCCAGGTACGCGCACGGTCCGAGGCTGGCTACGGTCCCTTCGGCCAGGAGCATCACAGTCAGACTCAACT  
 GGATGAGAGCGAGAGCTGGCGGGAGCAGCTGGCCCTGATTGCAGGCACTGCGGTTGTGGGTGTGGTCCTG  
 GTCCTGGTGGTCGTCATCATTGCAGTCTCTGCCTCAGGAAGCAGAGCAATGGGAGGGAAGTTGAGTACT  
 CGGATAAGCATGGGCAGTATCTCATCGGGCACGGTACCAAGGTCTACATTGATCCTTTTACTTACGAAGA  
 CCCTAATGAGGCAGTGAGGGAATTTGCCAAAGAGATCGATGTCTCCTATGTCAAGATTGAAGAGGTAATT  
 GGTGCAGGTGAGTTCGGCGAGGTGTGCCGGGGTCCGCTGAAGGCACCAGGGAAAAAGGAGAGCTGTGTGG  
 CCATCAAGACTCTGAAGGGTGGCTACACCGAGCGCCAGAGGCGTGAGTTCCTGAGCGAGGCCTCCATCAT  
 GGGCCAGTTCGAGCATCCCAACATCATCCGCCTCGAGGGCGTGGTCACCAACAGTGTGCCGGTTATGATC  
 CTCACGGAATTCATGGAGAACGGAGCCCTGGACTCCTTCTCGCGCTGAACGACGGGCAGTTCACAGTCA  
 TCCAGCTGGTGGGCATGCTGAGGGGCATCGCCTCGGGCATGCGGTACCTGGCTGAAATGAGCTATGTCCA  
 CCGAGACCTGGCTGCTCGGAACATCTTGGTCAACAGTAACCTGGTCTGCAAGGTGTCCGACTTTGGCCTC  
 TCCAGATTCTGGAGGAGAACTCCTCTGATCCCACCTACACAAGTTCCTGGGAGGCAAGATTCCCATCC  
 GATGGACCGCCCCTGAAGCCATTGCCTCAGGAAGTTCACCTCTGCCAGTGTGCTGGAGCTATGGGAT  
 CGTCATGTGGGAGGTGATGTCTTTGGGAACGGCCATACTGGGACATGAGCAACCAGGATGTGATCAAT  
 GCCATTGAACAGGACTACCGGCTGCCTCCTCCTCCAGACTGCCCCACCTCCTCCACCAGCTCATGTGG  
 ATTGTTGGCAGAAGGACCGGAATGCCCGGCCCGCTTTCCCCAGGTGGTCAGCGCTCTGGACAAGATGAT  
 CCGGAATCCCCTAGCCTCAAAATCGTGCCAGGGAGAATGGCGGGGCTCACATCCACTTTGGACCAA  
 CGGCAGCTCACTATTCTGCTTTTCGGTTCTGTGGCGAGTGGCTTCGAGCCATCAAGATGGGAAGATACG  
 AGGAAAGTTTTGCAGCGGCTGGATTTCGGCTCCTTTGAGGTGGTCAGTCAGATCTCTGCCGAGGACCTTCT  
 CCGAATTGGAGTCACTCTGGCAGGACACCAGAAGAAAATCTTGGCCAGTGTGCAGCATATGAAGTCCCAA  
 GCTAAGCCAGGAGCCCTGGTGGGACAGGGGGACCAGCCAGCAGTTC**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM\_001159571
- Insert Size:** 2991 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\_001159571.1, NP\_001153043.1
- RefSeq Size:** 4361 bp
- RefSeq ORF:** 2991 bp

Locus ID: 13846

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 (1) represents the longer transcript and encodes the longer isoform (a).