

Product datasheet for **MC223037**

Epha7 (NM_010141) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Epha7 (NM_010141) Mouse Untagged Clone
Tag: Tag Free
Symbol: Epha7
Synonyms: Cek11; Ebk; Ehk3; Hek11; Mdk1
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC223037 representing NM_010141
Red=Cloning site **Blue**=ORF **Orange**=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTTGTTCAAACCTCGGTTCCCTTCGTTGATTATTTTGTGTTACATCTGGCTGCTTGGCTTGCACACA
CGGGGAGGCGCAGGCTCGAAGGAAGTACTATTACTGGACTCGAAAGCACAACAACAGAATTGGAATG
GATTTCTCTCCACCCAGTGGTGGGAAGAAATTAGTGGTTTGGATGAGAACTACTCCGATAAGAACA
TACCAGGTGTGCCAGGTCATGGAGCCCAACCAGAACAACTGGCTGCGGACTAACTGGATTTCTAAAGGCA
ACGCACAAAGGATTTTTGTAGAATTGAAATTCACCTTGAGGGATTGTAATAGTCTTCCCGGAGTCCCTGGG
AACTTGCAAGGAAACGTTAATTTGACTATTATGAAACAGACTACGACACCCGGCAGGAATATACGAGAA
AACCTTTATGTTAAAATAGACACCATTGCTGCAGATGAAAGTTTACACAAAGGTGACCTTGGTGAAGAA
AGATGAAGCTGAACACTGAGGTGAGAGAGATTGGACCTTGTCCAAAAGGGATTCTATCTTGCCTTCA
GGATGTAGGGGCTTGCATAGCATTGGTTTCTGTCAAAGTGTACTACAAGAAGTGTGGTCCATTGTTGAG
AACTTAGCTGTCTTCCAGATACAGTACTGGTTCGGAATTTCTCCTTAGTCGAGGTCGGTGGACAT
GTGTGAGCAGTGCCGAGGAAGAGGCGAGAAAATCCCCAGAATGCATTGCAGTGCAGAAGGAGATGGCT
AGTACCCATTGGAAAATGCATCTGCAAAGCAGGCTATCAGCAAAAAGGGGACACTTGCGAACCCCTGTGGC
CGCAGGTTCTACAAATCTTCTCAGGATCTCCAGTGTCTCGTTGTCCAACCCACAGCTTCTCTGACC
GAGAAGGATCATCCAGGTGTGAATGTGAAGATGGTACTACAGAGCTCCTTCTGATCCACCATACGTTGC
ATGCACGAGGCCCTCCCTCTGCACCACAGAACCTTATTTTCAATATCAATCAAACGACTGTAAGTTTGGAA
TGGAGTCTCCGGCTGACAACGGGGGAAGAAACGATGTCACCTACAGAATACTGTGAAGCGGTGCAGTT
GGGAACAGGGAGAATGTGTGCCATGCGGAAGTAACATTGGATACATGCCCCAGCAGACGGGATTAGAGGA
TAACTATGTCAGTGTGATGGACCTACTTCCCCATGCAAATTACACTTTCGAAGTTGAAGCTGTAATGGA
GTTTCGGACTTAAGCAGATCCCAGAGGCTTTCGCTGCTGTTAGCATCACCACCGGTCAAGCAGCTCCCT
CGCAAGTGAGTGGAGTCAAGAAGGAGCGAGTACTGCAGCGGAGTGTGCAGCTTCTCCTGGCAGGAGCCGGA
GCATCCCAATGGAGTCATCACGGAATATGAAATCAAGTATTATGAGAAAGATCAACGGGAAAGGACGTAC
TCAACTCAAACCAAGTCCACCTCCGCTCCATTAATAATCTGAAACCGGGAACAGTGTACGTCTTTC



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AGATCCGGGCGGTCACTGCTGCCGGTTATGAAACTACAGCCCTAGGCTTGATGTTGCCACACTTGAGGA
AGCTTCAGGTA AAAATGTTTGAAGCGACAGCAGTCTCCAGTGAACAGAATCCTGTCATCATAATTGCTGTA
GTGGCTGTAGCAGGGACCATCATCTTGGTGTTCATGGTGTTCGGCTTCATCATTGGAAGAAGGCACTGTG
GTTATAGCAAGGCTGACCAAGAAGGGGATGAAGAACTCTACTTTTCAATTTAAATTTCCAGGCACCAAAAC
CTACATTGACCCTGAAACCTATGAGGACCCAAATAGAGCTGTCCATCAATTCGCCAAGGAGCTAGATGCC
TCCTGTATTA AAAATTGAGCGTGTGATTGGTGCAGGAGAATTTGGAGAAGTTTGCAGTGGTCGTTTGAAC
TTCCGGGGAAGAGAGATGTTGCAGTGGCCATAAAAACCCCTGAAAGTTGGTTACACAGAAAAGCAAAGGAG
GGACTTTTTATGCGAAGCAAGCATCATGGGGCAATTTGACCACCCAAATGTCGTCCATTTGGAAGGGGTT
GTTACAAGAGGGAAGCCTGTCATGATTGTGATAGAGTTCATGGAGAATGGAGCCCTGGATGCATTTCTCA
GAAACACGATGGGCAGTTACAGTCATTCAGTTGGTAGGAATGTTGAGAGGTATTGCCGCTGGGATGCG
ATACTTGGCTGATATGGGATACGTTACAGGGACCTTGCAGCGCAACATCCTTGTCAACAGCAATCTT
GTTTGTAAAGTGCAGATTTTGGCCTTTCCGGGTTATAGAGGATGATCCCGAAGCTGTCTACACCACGA
CTGGTGGAAAAATCCAGTAAGGTGGACTGCACCGGAAGCCATCAATACCGAAGTTACCTCAGCCAG
CGATGTGTGGAGCTATGGGATTGTATGTGGGAAGTGATGCTTATGGAGAAAGACCTTACTGGGACATG
TCAAATCAAGATGTCATTAAGCGATAGAAGAAGTTATCGTTTCCGGCGCCCATGGATTGCCAGCTG
GTCTTCACCAGCTAATGCTGGATTGTTGGCAGAAAGATCGGGCGGAAAGGCCAAAGTTTGCAGAGATAGT
CGGAATTTAGACAAAATGATTCGAAACCAAGTAGTCTGAAAACACCCCTGGGAACTTGTAGTAGCC
TTAAGCCCTCTTCTGGACCAGAGCACTCCTGACTTCACTGCCTTCTGTTCAAGTTGGAGAATGTTGCAAG
CTATTA AAAATGGAAGGTATAAGGACAACCTCACAGCAGCGGGTTACAACCTACTCGAGTCAGTGGCCAG
GATGACTATCGATGATGTGATGAGTTTAGGGATCACACTGGTTGGCCATCAAAGAAGATCATGAGCAGC
ATCCAGACTATGCGGGCACAAAATGTTGCATTTACACGGAACAGGCATCCAAGTGA

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ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM_010141
- Insert Size:** 2997 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_010141.4](#), [NP_034271.3](#)
- RefSeq Size:** 6750 bp
- RefSeq ORF:** 2997 bp
- Locus ID:** 13841

UniProt ID: [Q61772](#)

Cytogenetics: 4 12.42 cM

Gene Summary: Receptor tyrosine kinase which binds promiscuously GPI-anchored ephrin-A 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. Among GPI-anchored ephrin-A ligands, EFNA5 is a cognate/functional ligand for EPHA7 and their interaction regulates brain development modulating cell-cell adhesion and repulsion. Has a repellent activity on axons and is for instance involved in the guidance of corticothalamic axons and in the proper topographic mapping of retinal axons to the colliculus. May also regulate brain development through a caspase(CASP3)-dependent proapoptotic activity. Forward signaling may result in activation of components of the ERK signaling pathway including MAP2K1, MAP2K2, MAPK1 AND MAPK3 which are phosphorylated upon activation of EPHA7. Isoform 4 which lacks the kinase domain may regulate isoform 1 adhesive properties.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) encodes the longest isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.