

## Product datasheet for **MR226341**

### Epha5 (NM\_007937) Mouse Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                                   |
| Product Name:             | Epha5 (NM_007937) Mouse Tagged ORF Clone              |
| Tag:                      | Myc-DDK   |
| Symbol:                   | Epha5   |
| Synonyms:                 | AI854630; AW125296; bsk; Cek7; Ehk1; Els1; Hek7; Rek7 |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-Entry (PS100001)                                |
| E. coli Selection:        | Kanamycin (25 ug/mL)                                  |



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**ORF Nucleotide Sequence:**

>MR226341 representing NM\_007937  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATCGGGGCTCCGGGCCCGCGGTGCGGGACACCGACGGACCCAGGGCAGAGGTGGCGGCGACGACACCC  
 CCCGCGTCCCTGCCTCTCTGGCAGGCTGCTATTCGGCACCTCTAAAGGGCCCCCTCTGGACGTGCCTTCT  
 CTTGTGTGCGGCGCTCCGGACCCCTTTGGCCAGCCCCAGCAACGAAGTGAATTTGTTGGATTTCGCGCACT  
 GTCATGGGGGACCTTGGATGGATTGCTTTTCCAAGAACGGGTGGGAAGAGATTGGTGAAGTTGATGAGA  
 ACTATGCCCCCATCCACACATACCAAGTGTGCAAAGTTATGGAACAGAATCAGAATAATTGGCTGTTGAC  
 CAGTTGGATCTCTAACGAAGGTGCTTCCAGAATCTTTATTGAACTCAAGTTTACTTTAAGGGACTGCAAC  
 AGCCTTCTCGAGGACTGGGACTTGTAAAGGAGACATTTAACATGTATTATTTGAATCAGATGATGAGA  
 ATGGGAGAAGTATCAAAGAGAACCAATACATCAAGATTGATACCATCGCTGCAGATGAGAGCTTCACAGA  
 ACTTGATCTTGGTGACCGTGTGATGAAACTGAATACAGAGGTGAGAGATGTCGGACCTCTGAGCAAAAAG  
 GGATTTTATCTTGCTTTCCAAGATGTCGGTGTTCGATTGCTCTGGTTTCTGTCCGTGTCTACTATAAAA  
 AGTGTCCCTCTGTAGTAAGACACTTGGCTATCTTCCCTGACACTATCACTGGAGCAGATTATCACAGTT  
 GTTAGAGGTGTCAGGCTCCTGCGTCAACCATCTGTGACAGATGATCCTCCCAAGATGCATTGCAGTGTCT  
 GAAGGGGAGTGGCTGGTTCCTATGGGAAATGCATGTGCAAGGCTGGATATGAAGAGAAAAATGGTACCT  
 GCCAAGCTCCTTCTCCAGTACCAATGTGAAAAAGGGGAAGATTGCAAAGAACAGCATTTCTTTGTCTTG  
 GCAAGAGCCAGATCGCCCCAATGGAATTATCCTGGAGTATGAAATCAAGTACTTTGAAAAGGACCAAGAG  
 ACCAGTTACACAATTATCAAGTCTAAAGAGACCAGTATTACAGCCGAGGGCTGAAACCTGCATCTGTGT  
 ATGTCTTCCAAATTCGAGCACGTACAGCACGAGCTACGGCGTCTTCAGTCAAGATTGAGTTTGAAC  
 CACACCAGTGTGAGTTCAGCATCTAATGATCAAAGCCAGATTCCCATCATTGTCAGTGTGAGTGCAGTGT  
 GGAGTCATCTTGTGGCAGTGTGATCGCTTCTCCTCAGTGGCAGTTGCTGCGATTGTGGCTGTGGGA  
 GGGCTTCTTCCCTGTGCGCTGTTGCCATCCAAGCCTAATATGGCGGTGTGGCTACAGCAAAGCAAAGCA  
 GGATCCAGAAGAGGAAAAGATGCACTTTTATAACGGGCACATTAAGTCCAGGAGTGCAGAACCTATATT  
 GATCCGCACACTTATGAAGATCCCAATCAAGCTGTTTATGAAATTTGCGAAGGAGATTGAAGCTTCATGCA  
 TCACCATTGAGAGAGTGTGCGGACAGGTGAATTTGGTGAAGTTTGCAGTGGACGTTTGAAGTACCTGG  
 AAAAGAGAATTACCTGTGGCTATCAAACCTTAAAGTAGGCTATACTGAAAAGCAGCGCAGAGATTTCT  
 CTGGGTGAAGCAAGTATTATGGGCGAGTTCGATCATCAAACATCATCCATCTAGAAGGTGTTGTGACTA  
 AAAGCAAACCTGTGATGATAGTGACAGAGTACATGGAGAACGGCTCCTTAGACACGTTTTTAAAGAAAA  
 CGATGGGCAGTTCAGTGTGATTAGCTTGTGGCATGCTGAGAGGCATCGCTGCAGGAATGAAGTACCTT  
 TCTGACATGGGCTACGTGCATAGAGACCTTGTGCTAGAAAACATCTTAATCAACAGTAACCTTGTGTGCA  
 AGGTGTCTGACTTTGGACTTTCCAGGACTGGAAGATGATCCTGAGGCAGCCTACACCACAAGGGGAGG  
 CAAAATCCAATCAGATGGACTGCCCGGAGGCAATAGCTTTTCGAAAAGTTCACCTCTTCCAGTGTGTC  
 TGGAGCTATGGCATTGTAATGTGGGAAGTTGTATCTTATGGAGAGAGACCCTACTGGGAGATGACCAATC  
 AGGATGTGATCAAGGCAGTAGAAGAAGGCTACCGCCTGCCAAGCCCCATGGATTGCCCTGCTGCTCTA  
 TCAATTAATGCTGGATTGCTGGCAGAAAGATCGAAACAGCAGGCCAAGTTTGTGAAATCGTCAACATG  
 CTGGACAAAATGATACGAAACCAAGTAGTCTGAAGACACTGGTGAATGCGTTCGAGCAGAGTGTCTACAT  
 TGTGGCAGAACATGGTTCTTTGGGCTCTGGGCTACAGATCAGTAGGTGAATGGCTGGAAGCAATCAA  
 AATGGGTCGGTACACAGAGATTTTATGGAAAATGGATACAGTTCAATGGACGCTGTGGCTCAGGTGACC  
 TTGGAGGATTTGAGGCGCTGGGAGTACTCTGGTCGGTCACCAGAAGAAGATCATGAGCAGCCTTCAAG  
 AGATGAAGGTGCAGATGGTAAACGGGATGGTGCCAGTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR226341 representing NM\_007937  
 Red=Cloning site Green=Tags(s)

MRGSGPRGAGHRRTQGRGGDDTPRVPASLAGCYSAPLKGPLWTCLLLCAALRTLLASPSNEVNLLDSRT  
 VMGDLGWIAPKNGWEEIGEVDENYAPIHTYQVCKVMEQNQNWLLTSWISNEGASRIFIELKFTLRDCN  
 SLPGGLGTCKETFNMYFESDDENGRSIKENQYIKIDTIAADESFTELDLGDVRMKNLNTVDRDVGPLSKK  
 GFYLAFQDVGACIALVSVRVYYKKCPSSVVRHLAIFPDTITGADSSQLLEVSGSCVNHVSVDPPKMHCSA  
 EGEWLVPIGKCMCKAGYEEKNGTCQAPSPVTNVKKGKIAKNSISLSWQEPDRPNGIILEYEIKYFEKDQE  
 TSYTIIKSKETSITAEGLKPASVYVFQIRARTAAGYGVFSRRFEFETTPVSAASNDQSQIPIIAVSVTV  
 GVILLAVMIGFLLSGSCDCGCGRASSLCAVAHPSLIWRCGYSKAKQDPEEEKMHFHNGHIKLPGVRTYI  
 DPHTYEDPNQAVHEFAKIEEASCITIERVIGAGEFGEVCSGRLLKPGKRELPAVIAIKTLKVGYTEKQRDF  
 LGEASIMGQFDHPNIIHLEGVVTKSKPVMIVTEYMEGSLDTFLKKNQGQFTVIQLVGLMRGIAAGMKYL  
 SDMGYVHRDLAARNILINSNLVCKVDFGLSRVLEDDPEAAAYTRGGKIPIRWTAPEAIAFRKFTSSSDV  
 WSYGIVMWEVVSYGERPYWEMTNQDVIKAVEEGYRLPSPMDCPAALYQLMLDCWQKDRNSRPKFDEIVNM  
 LDKLIRNPSSLKTLVNASSRVSTLLAEHGSLGSGAYRSVGEWLEAIKMGRYTEIFMENGYSMDAVAQVT  
 LEDLRLGVTLVGHQKKIMSSLQEMKVQMVNGMVPV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

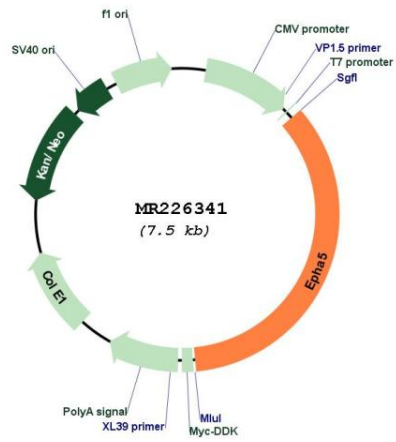
Sgfl-MluI

**Cloning Scheme:**



|                               |  |
|-------------------------------|--|
| <b>ACCN:</b>                  | NM_007937  |
| <b>ORF Size:</b>              | 2628 bp  |
| <b>OTI Disclaimer:</b>        | 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. <a href="#">More info</a>   |
| <b>OTI Annotation:</b>        | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.   |
| <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_007937.3</a> , <a href="#">NP_031963.2</a>  |
| <b>RefSeq Size:</b>           | 7789 bp  |
| <b>RefSeq ORF:</b>            | 2631 bp  |
| <b>Locus ID:</b>              | 13839  |
| <b>UniProt ID:</b>            | <a href="#">Q60629</a>   |
| <b>Cytogenetics:</b>          | 5 43.0 cM  |
| <b>MW:</b>                    | 97.5 kDa   |
| <b>Gene Summary:</b>          | 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 most probably constitutes the cognate/functional ligand for EPHA5. Functions as an axon guidance molecule during development and may be involved in the development of the retinotectal, entorhino-hippocampal and hippocamposeptal pathways. Together with EFNA5 plays also a role in synaptic plasticity in adult brain through regulation of synaptogenesis. In addition to its function in the nervous system, the interaction of EPHA5 with EFNA5 mediates communication between pancreatic islet cells to regulate glucose-stimulated insulin secretion. [UniProtKB/Swiss-Prot Function] |

Product images:



Circular map for MR226341