

Product datasheet for **MR226271**

Epha7 (NM_001122889) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Epha7 (NM_001122889) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Epha7
Synonyms:	Cek11; Ebk; Ehk3; Hek11; Mdk1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR226271 representing NM_001122889
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGTTGTCAAACCTCGTTCCCTTCGTGGATTATTTGTGTACATCTGGCTGCTTGGCTTTGCACACA
 CGGGGAGGCGCAGGCTGCGAAGGAAGTACTATTACTGGACTCGAAAGCACAACAACAGAAATTGGAATG
 GATTTCTCTCCACCCAGTGGGTGGGAAGAAATTAGTGGTTTGGATGAGAACTACACTCCGATAAGAACA
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 GTCAGTTTTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

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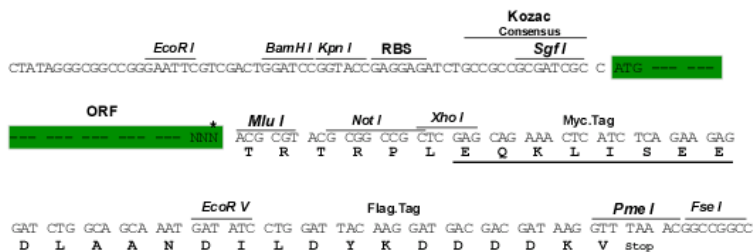
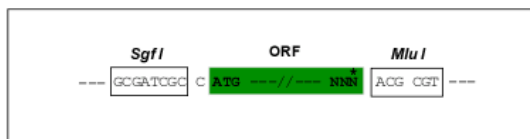
MVVQTRFPSWIILCYIWLLGFAHTGEAQAKEVLLLLDSKAQQTELEWISSPPSGWEEISGLDENYPIRT
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 NLYVKIDTIAADESFTQGDGERKMLNTEVREIGPLSKKGFYLAQDVGACIALVSVKVVYKCCWSIVE
 NLA VFPDVTGSEFSSLVEVRGTCVSSAEEEAENS PRMHCSAEGEWLVPIGKICKAGYQQKGDTCPCG
 RRFYKSSQDLQCSRPTHFSFDREGSSRCECEDGYRAPSDPPYVACTRPPSAPQNLIFINQTTVSLE
 WSPPADNNGRNDVTYRILCKRCSWEQGEVPCGSNIGYMPQQTGLEDNVYVMDLLAHANYTFEVEAVNG
 VSDLRSQRLEFAAVSITGQAAPSQVSGVMKERVLRQSVQLSWQEPHPNGVITEYEIKYKEDQRERTY
 STLKTKSTSASINNLKPGTVYVFQIRAVTAAGYGNYSRPLDVATLEEASGKMF EATAVSSEQNPVIIAV
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

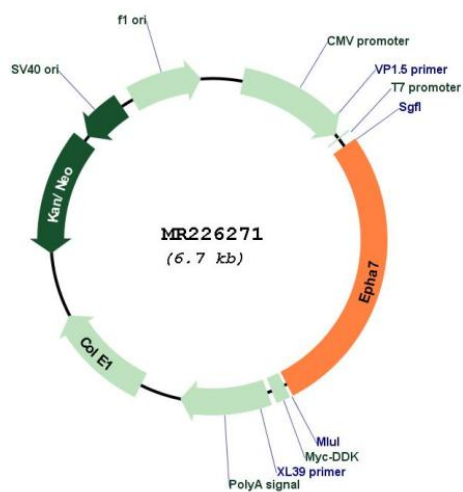
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001122889

ORF Size: 1830 bp

OTI Disclaimer:	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. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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:	<ol style="list-style-type: none"> 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_001122889.1 , NP_001116361.1
RefSeq Size:	3272 bp
RefSeq ORF:	1833 bp
Locus ID:	13841
Cytogenetics:	4 12.42 cM
MW:	68.7 kDa
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]