

Product datasheet for **RC213689**

Eph receptor A1 (EPHA1) (NM_005232) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Eph receptor A1 (EPHA1) (NM_005232) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Eph receptor A1
Synonyms:	EPH; EPHT; EPHT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC213689 representing NM_005232
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAGCGGCGCTGGCCCTGGGGCTAGGGCTGGTGTCTGCTGCTGCGCCCCGCTGCCCGGGGGCTC
 ACGCCAAGGAAGTTACTCTGATGGACACAAGCAAGGCACAGGGAGAGCTGGGCTGGCTGGATCCCCC
 AAAAGATGGGTGGAGTGAACAGCAACAGATACTGAATGGGACACCCCTGTACATGTACCAGGACTGCCCA
 ATGCAAGGACGCAGAGACTGACCCTGGCTTCCGCTCCAATTGGATCTACCGGGGGAGGAGGCTTCCC
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC213689 representing NM_005232
 Red=Cloning site Green=Tags(s)

MERRWPLGLGLVLLLCAPLPPGAHAKEVTLMDTSKAQGELGWLLDPPKDGWSEQQILNGTPLYMYQDCP
 MQGRRDDHWLRSNWIYRGEEASRVHVELQFTVRDCKSFPGGAGPLGCKETFNLLYME SDQDVGIQLRRP
 LFQKVTTVAADQSFTIRDLASGSVKLNVERCSLGRLTRRGLYLAFHNPGACVALVSVRVFYQRCPETLNG
 LAQFPDTLPGPAGLVEVAGTCLPHARASPRPSGAPRMHCSPDGEWLVPVGRCHCEPGYEEGSGEACVAC
 PSGSYRMDMDTPHCLTCPQQSTAESEGATICTCESGHRAPGEGPQVACTGPPSAPRNLSF SASGTQLSL
 RWEPPADTGGRQDVRYSVRCSQCQGT AQDGGPCQPCGVGVHFS PGARGLTTPAVHVNGLEPYANYTFNVE
 AQNGVSLGSSGHASTSVSISMGHAESLSGLSLRLVKKEPRQLELTWAGSRPRSPGANLYELHVLNQDE
 ERYQMVLEPRVLLTELQPDTTYIVRVRMLTPLGPGFSPDHEFRTSPPVSRGLTGGEIVAVIFGLLLGAA
 LLLGILVFRSRRARQRQRDRATDVEDKDLWLPYVDLQAYEDPAQGALDFTRELDPAWLMVDTVI
 GEGEFGEVYRGTLR LPSQDCKTVAIKTLKDTSPGGQWVNFLEATIMGQFSHPHILHLEGVVTKRKPIMI
 ITFEMENGALDAFLREREDQLVPGQLVAMLQGIASGMNYLSNHNYVHRDLAARNILVNQNLCKKVSDFL
 TRLLDDFDGTYTEQGGKIPIRWTAPEAIAHRIFTTASDVVSFGI VMWEVLSFGDKPYGEMSNQEVMSKIE
 DG YRLPPPVDCAPLYELMKNCWAYDRARRPHFQKLQAHLEQLLANPHSLRTIANFDPRTLRPLSLSGS
 DGIPYRTVSEWLESIRMKRYILHFHSAGLDTMECVLELTAEDLTQMGITLPGHQKRILCSIQGFKD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6167_a05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



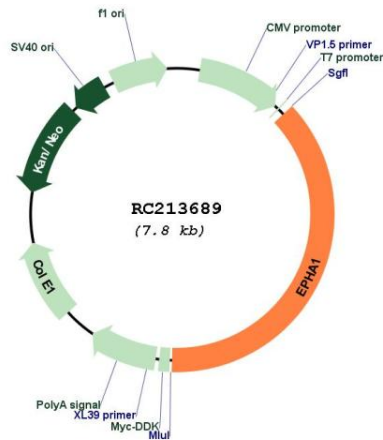
* The last codon before the Stop codon of the ORF

ACCN: NM_005232

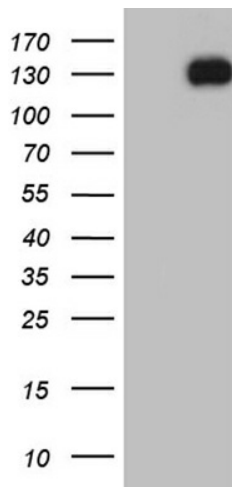
ORF Size: 2928 bp

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_005232.5
RefSeq Size:	3367 bp
RefSeq ORF:	2931 bp
Locus ID:	2041
UniProt ID:	P21709
Cytogenetics:	7q34-q35
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Axon guidance
MW:	107.9 kDa
Gene Summary:	This gene belongs to the ephrin receptor subfamily of the protein-tyrosine kinase family. EPH and EPH-related receptors have been implicated in mediating developmental events, particularly in the nervous system. Receptors in the EPH subfamily typically have a single kinase domain and an extracellular region containing a Cys-rich domain and 2 fibronectin type III repeats. The ephrin receptors are divided into 2 groups based on the similarity of their extracellular domain sequences and their affinities for binding ephrin-A and ephrin-B ligands. This gene is expressed in some human cancer cell lines and has been implicated in carcinogenesis. [provided by RefSeq, Jul 2008]

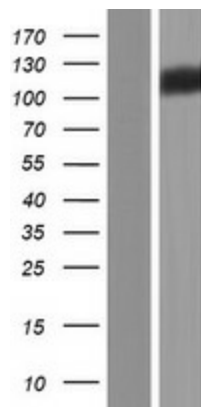
Product images:



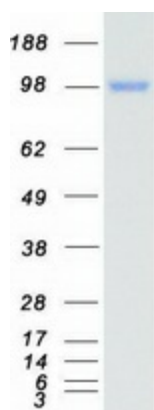
Circular map for RC213689



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY EPHA1 (Cat# RC213689, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-EPHA1 (1:2000) (Cat# [TA809666]). Positive lysates [LY401608] (100ug) and [LC401608] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401608]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213689 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified EPHA1 protein (Cat# [TP313689]). The protein was produced from HEK293T cells transfected with EPHA1 cDNA clone (Cat# RC213689) using MegaTran 2.0 (Cat# [TT210002]).