

Product datasheet for **RC205725**

Eph receptor A2 (EPHA2) (NM_004431) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Eph receptor A2 (EPHA2) (NM_004431) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Eph receptor A2
Synonyms:	ARCC2; CTPA; CTPP1; CTRCT6; ECK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RC205725 representing NM_004431
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGCTCCAGGCAGCCCGCGCTGCTTCGCCCTGCTGTGGGGTGTGCGCTGGCCGCGCCGCGCGG
 CGCAGGGCAAGGAAGTGGTACTGCTGGACTTTGCTGCAGCTGGAGGGAGCTCGGCTGGCTCACACACC
 GTATGGCAAAGGGTGGGACCTGATGCAGAACATCATGAATGACATGCCGATCTACATGTAAGTCCGTTG
 AACGTGATGTCTGGGACCAGGACAACCTGGCTCCGCACCAACTGGGTGTACCGAGGAGAGGCTGAGCGTA
 TCTTCATTGAGCTCAAGTTTACTGTACGTGACTGCAACAGCTTCCCTGGTGGCGCCAGCTCCTGCAAGGA
 GACTTTCAACCTCTACTATGCCGAGTCGGACCTGGACTACGGCACCAACTCCAGAAGCGCTGTTACC
 AAGATTGACACATTGCGCCGATGAGATCACCGTCAGCAGCGACTTCGAGGCACGCCACGTGAAGCTGA
 ACGTGGAGGAGCGCTCCGTGGGGCCGCTCACCCGCAAAGGCTTCTACCTGGCCTCCAGGATATCGGTGC
 CTGTGTGGCGCTGCTCTCCGTCCGTGTCTACTACAAGAAGTGCCCGAGCTGCTGCAGGGCTGGCCAC
 TTCCCTGAGACCATCGCCGGCTCTGATGCACCTTCCCTGGCCACTGTGGCCGGCACCTGTGTGGACCATG
 CCGTGGTGCCACCGGGGGTGAAGAGCCCCGATGCACTGTGCAGTGGATGGCGAGTGGTGGTGCCAT
 TGGGCAGTGCCTGTGCCAGGCAGGCTACGAGAAGTGGAGGATGCCTGCCAGGCCTGCTCGCTGGATTT
 TTTAAGTTTGGGATCTGAGAGCCCCTGCTTGGAGTGCCTGAGCACACGCTGCCATCCCTGAGGGTG
 CCACCTCCTGCGAGTGTGAGGAAGGCTTCTCCGGCACCTCAGGACCCAGCGTCGATGCCTTGACACG
 ACCCCCTCCGCCACACTACCTCACAGCCGTGGGATGGGTGCCAAGTGGAGCTGCGCTGGACGCC
 CCTCAGGACAGCGGGGCGGAGGACATTGTCTACAGCGTCACTGCGAACAGTGTGCGCCGAGTCTG
 GGAATGCGGGCCGTGTGAGCCAGTGTGCGCTACTCGGAGCTCCTCAGGACTGACCCGACCCAGTGT
 GACAGTGAAGCAGCTGGAGCCCCACATGAACACACTTACCCTGAGGAGCCGCAATGGCGTCTCAGGC
 CTGGTAACCAGCCGACGCTTCCGTACTGCCAGTGTGAGCATCAACCAGACAGAGCCCCAAGGTGAGGC
 TGGAGGGCCGAGCACCCTCGCTTAGCGTCTCCTGGAGCATCCCCCGCCGAGCAGAGCCGAGTGTG
 GAAGTACGAGGTCACTTACCGCAAGAAGGGAGACTCCAACAGCTACAATGTGCGCCGACCGAGGGTTTC
 TCCGTGACCTGGACGACTGGCCCCAGACACCACCTACCTGGTCCAGGTGCAGGACTGACGCAGGAGG
 GCCAGGGGCGGCGAGCAAGGTGCACGAATCCAGACGCTGTCCCGGAGGGATCTGGCACTTGGCGGT
 GATTGGCGCGTGGTGTGCGGTGTGCTCCTGCTTCTGGTGTGCGAGGAGTTGGCTTCTTATCCACCGC
 AGGAGGAAGAACCAGCGTCCCCGCCAGTCCCCGAGGACGTTTACTTCTCCAAGTCAACAACCTGAAGC
 CCCTGAAGACATACGTGGACCCCAACATATGAGGACCCCAACCAGGCTGTGTTGAAGTCACTACCGA
 GATCCATCCATCCTGTGTCACTCGGCAGAAAGGTGATCGGAGCAGGAGAGTTTGGGAGGTGTACAAGGGC
 ATGCTGAAGACATCCTCGGGGAAGAAGGAGGTGCCGTTGGCCATCAAGACGCTGAAAGCCGGCTACACAG
 AGAAGCAGCGAGTGGACTTCTCGGCGAGGCGGCATCATGGCCAGTTCAGCCACCACAACATCATCCG
 CCTAGAGGGCGTCATCTCAAATACAAGCCATGATGATCACTGAGTACATGGAGAATGGGGCCCTG
 GACAAGTTCCTTCGGGAGAAGGATGGCGAGTTCAGCGTGTGAGCTGGTGGCATGCTGCGGGGATCG
 CAGCTGGCATGAAGTACCTGGCAACATGAACATGTGCACCGTACCTGGTGGCCGCAACATCCTCGT
 CAACGCAACCTGGTCTGCAAGGTGTGACTTTGGCCTGTCCCGCTGCTGGAGGACACCCCGAGGCC
 ACCTACACCACCAGTGGCGGCAAGATCCCATCCGCTGGACCGCCCGGAGGCCATTTCTACCGAAGT
 TCACCTCTGCCAGCGACGTGTGGAGCTTTGGCATTGTCATGTGGGAGGTGATGACCTATGGCGAGGGCC
 CTAAGTGGAGTTGTCCAACCAGGAGTGTGAAAGCCATCAATGATGGCTTCCGGCTCCCCACACCCATG
 GACTGCCCTCCGCCATCTACCAGCTCATGATGCAGTGTGGCAGCAGGAGCGTGGCCGCGCCCAAGT
 TCGCTGACATCGTCAGCATCCTGGACAAGCTCATTGTCGCCCTGACTCCCTCAAGACCTGGCTGACTT
 TGACCCCGCGTGTCTATCCGGCTCCCCAGCAGCGGCTCGGAGGGGTGCCCTCCGACCGGTGTC
 GAGTGGCTGGAGTCCATCAAGATGCAGCAGTATACGGAGCACTTATGGCGCCGGCTACTGCCATCG
 AGAAGGTGGTGCAGATGACCAACGACGACATCAAGAGGATTGGGTGCGGCTGCCCGCCACCAGAAGCG
 CATCGCTACAGCTGCTGGACTCAAGGACCAGGTGAACACTGTGGGGATCCCCATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC205725 representing NM_004431
 Red=Cloning site Green=Tags(s)

MELQAARACFALLWGCALAAAAAQQKEVVLDFAAAGGELGWLTHPYGKGWDLMQNIMNDMPIYMSVC
 NVMSGDQDNWLRNWNVYRGEAERIFIELKFTVRDCNSFPGGASSCKETFNLYAESDLDYGTNFQKRLFT
 KIDTIAPDEITVSSDFEARHVKLNVEERSVGPLTRKGFYLAQDQIGACVALLSVRVYKCPPELLQGLAH
 FPETIAGSDAPSLATVAGTCVDHAVVPPGGEEPMMHCAVDGEWLVIQQLCQAGYEKVEDACQACSPGF
 FKFEASESPCLEPHTLPSPEGATSCCEEGFFRAPQDPASMPCTRPPSAPHYLTAVMGAKVELRWTP
 PQDSSGGREDIVYSVTCEQCWPESGECGPEASVRYSEPPHGLTRTSVTVSDLEPHMNYTFTVEARNGVSG
 LVTSRSFRTASVSINQTEPPKVRLEGRSTTSLSVSWSIPPPQSRVWKYEVYTRKKGDSNSYNVRRTEGF
 SVTLDDLAPDTTYLVQVQALQEGQGAGSKVHEFQTLSPGSGNLAVIGGVAVGVVLLVLAGVGFIIHR
 RRKNQRARQSPEDVYFSKSEQLKPLKTYVDPHTYEDPNQAVLKFTTEIHPSCVTRQKVI GAGEFGEVYK
 MLKTSSGKKEVPVAIKTLKAGYTEKQRVDFLGEAGIMGQFSHHNIIRLEGVISKYKPMMIITEYMENGAL
 DKFLREKDGESVLQLVGMLRGAAGMKYLANMNYVHRDLAARNILVNSNLVCKVSDFGLSRVLEDDPEA
 TYTTSGGKIPIRWTAPEAISYRKFTSASDVWSFGIVMWEVMTYGERPYWELSNHEVMKAINDGFRPTPM
 DCPSAIYQLMMQCWQERARRPKFADIVSILDKLIRAPDSLKTLADFDPRVSIRLPSTSGSEGVFPRTVS
 EWLESIKMQQYTEHFMAAGYTAIEKVVQMTNDDIKRIGVRLPGHQKRIAYSLGLKQVNTVGIPI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg4077_b06.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_004431

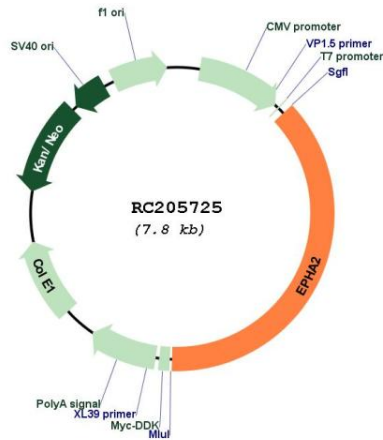
ORF Size: 2928 bp

OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.
	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_004431.5
RefSeq Size:	3963 bp
RefSeq ORF:	2931 bp
Locus ID:	1969
UniProt ID:	P29317
Cytogenetics:	1p36.13
Domains:	pkinese, EPH_lbd, TyrKc, SAM, S_TKc, FN3
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Axon guidance
MW:	108.1 kDa

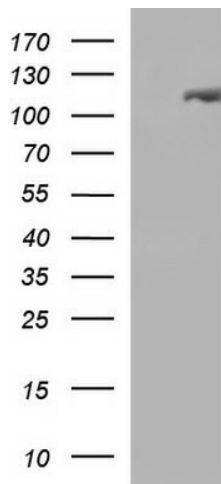
Gene Summary:

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 encodes a protein that binds ephrin-A ligands. Mutations in this gene are the cause of certain genetically-related cataract disorders.[provided by RefSeq, May 2010]

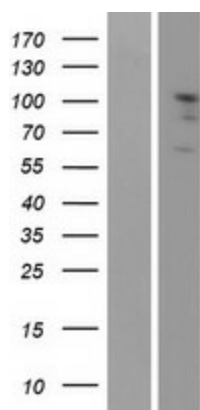
Product images:



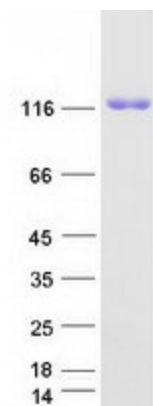
Circular map for RC205725



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY EPHA2 (Cat# RC205725, 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-EPHA2 (Cat# [TA590631]). Positive lysates [LY417985] (100ug) and [LC417985] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY417985]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205725 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified EPHA2 protein (Cat# [TP305725]). The protein was produced from HEK293T cells transfected with EPHA2 cDNA clone (Cat# RC205725) using MegaTran 2.0 (Cat# [TT210002]).