

Product datasheet for **RC600038**

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:	DDK-His
Symbol:	Eph receptor A2
Synonyms:	ARCC2; CTPA; CTPP1; CTRCT6; ECK
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5-DDK-His (PS100068)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RC600038 representing leader sequence plus the extracellular domain region of NM_004431

Red=Cloning site Blue=ORF Green=Tags(s)

GTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCTGGTACCGAGGAGATCCGCCGCCG
CGATCGCC

ATGAGACTCCAGGCAGCCCGCCCTGCTTCGCCCTGCTGTGGGGTGTGCGCTGGCCGCGCCGCGCGG
CGCAGGGCAAGGAAGTGGTACTGCTGGACTTTGCTGCAGCTGGAGGGAGCTCGGCTGGCTCACACACC
GTATGGCAAAGGGTGGGACCTGATGCAGAACATCATGAATGACATGCCGATCTACATGACTCCGTGTGC
AACGTGATGTCTGGGACCAGGACAACCTGGCTCCGCACCAACTGGGTGTACCGAGGAGAGGCTGAGCGTA
TCTTCATTGAGCTCAAGTTTACTGTACGTGACTGCAACAGCTTCCTGGTGGCGCCAGCTCCTGCAAGGA
GACTTTCAACCTCTACTATGCCGAGTCGGACCTGGACTACGGACCAACTCCAGAAGCGCTGTTACC
AAGATTGACACCATTGCGCCGATGAGATCACCGTCAGCAGCGACTTCGAGGCACGCCACGTGAAGCTGA
ACGTGGAGGAGCGCTCCGTGGGGCCGCTCACCCGCAAAGGCTTACCTGGCCTCCAGGATATCGGTGC
CTGTGTGGCGCTGCTCTCCGTCCGTGTCTACTACAAGAAGTGCCCGAGCTGCTGCAGGGCTGGCCAC
TTCCCTGAGACCATCGCCGGCTCTGATGCACCTTCCTGGCCACTGTGGCCGGCACCTGTGTGGACCATG
CCGTGGTGCCACCGGGGGTGAAGAGCCCCGATGCACCTGTGCAGTGGATGGCGAGTGGTGGTCCCAT
TGGGCAGTGCCTGTGCCAGGCAGGCTACGAGAAGTGGAGGATGCCTGCCAGGCCGTCTCGCTGGATTT
TTAAGTTTGAAGCATCTGAGAGCCCCTGCTTGGAGTGCCTGAGCACACGCTGCCATCCCTGAGGGTG
CCACCTCTGCGAGTGTGAGGAAGGCTTCTCCGGCACCTCAGGACCCAGCGTCGATGCCTGCACACG
ACCCCCCTCCGCCACACTACCTCACAGCCGTGGCATGGGTGCCAAGTGGAGCTGCGCTGGCCGAGTCTG
CCTCAGGACAGCGGGGGCCGAGGACATTGTCTACAGCGTCACCTGCGAACAGTGTGGCCGAGTCTG
GGAAATGCGGGCCGTGTGAGGCCAGTGTGCGCTACTCGGAGCCTCCTCAGGACTGACCCGACCAAGTGT
GACAGTGAAGCAGCTGGAGCCCCACATGAACACCTTCACCGTGGAGGCCCGCAATGGCGTCTCAGGC
CTGGTAACAGCCGAGCTTCCGTACTGCCAGTGTGAGCATCAACCAGACAGAGCCCCCAAGGTGAGGC
TGGAGGGCCGAGCACCCTCGCTTAGCGTCTCCTGGAGCATCCCCCGCCGAGCAGAGCCGAGTGTG
GAAGTACGAGGTCACTTACCGCAAGAAGGGAGACTCCAACAGCTACAATGTGCGCCGACCGAGGGTTTC
TCCGTGACCTGGAGCCTGGCCCCAGACACCACCTACCTGGTCCAGGTGCAGGCACTGACGCAGGAGG
GCCAGGGGCCGAGCAAGGTGCAGCAATTCCAGACGCTGTCCCGGAGGGATCTGGCAACTTGGCGGT
G

ACGCGTTCAGGGCGACTACAAGGATGACGACGATAAGGGATCTCATCATCACCATCACCATTAATGAGATC
TGGTACCGATATCAAGCTTGTGACTCTAGA

Protein Sequence:

>RC600038 representing signal peptide plus the extracellular domain region of NM_004431

Red=Cloning sites Green= DDK and 6XHIS Tags

MELQAARACFALLWGCALAAAAAQKQEVVLLDFAAAGGELGWLTHPYGKGWDLMQNIMNDMPIYMSVC
NVMSGDQDNWLRNWNVYRGEAERIFIELKFTVRDCNSFPGGASSCKETFNLYYAESDLDYGTNFQKRLFT
KIDTIAPDEITVSSDFEARHVKLNVEERSVGPLTRKGFYLAQDQIGACVALLSVRYYYKCPPELLQGLAH
FPETIAGSDAPSLATVAGTCVDHAVVPPGGEEPRMHCAVDGEWLVPDQCLCQAGYEKVEDACQACSPGF
FKFEASESPCLEPEHTLPSPEGATSCCEEGFFRAPQDPASMPCTRPPSAPHYLTAVMGAKVELRWTP
PQDSGGREDIVSVTCEQCWPESGECGPCEASVRYSEPPHGLTRTSVTVSDLEPHMNYFTTVEARNGVSG
LVTSRSFRITASVSNQTEPPKVRLEGRSTTSLSVSWSIPPPQSRVWYEVYTRKKGDSNSYNVRRTEGF
SVTLDDLAPDTTYLVQVQALTQEQGAGSKVHEFQTLSPGSGNLAV

TRSGTRSGDYKDDDDKGSHHHHHH

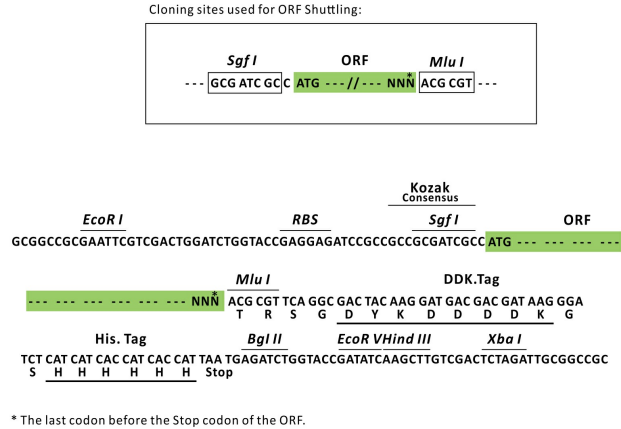
Chromatograms:

https://cdn.origene.com/chromatograms/mk8117_f03.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_004431

ORF Size: 1611 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 extra cellular domain of the protein 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:
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_004431.3 , NP_004422.2
RefSeq Size:	3970 bp
RefSeq ORF:	2931 bp
Locus ID:	1969
UniProt ID:	P29317
Cytogenetics:	1p36.13
Domains:	pkinase, EPH_lbd, TyrKc, SAM, S_TKc, FN3
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Axon guidance
MW:	58.8 kDa
Gene Summary:	<p>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]</p>