

Product datasheet for **SC323574**

Eph receptor A2 (EPHA2) (NM_004431) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Eph receptor A2 (EPHA2) (NM_004431) Human Untagged Clone
Tag:	Tag Free
Symbol:	Eph receptor A2
Synonyms:	ARCC2; CTPA; CTPP1; CTRCT6; ECK
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC323574 sequence for NM_004431 edited (data generated by NextGen Sequencing)

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ATGGAGCTCCAGGCAGCCCGCGCCTGCTTCGCCCTGCTGTGGGGTGTGCGCTGGCCGCG
GCCGCGCGCGCGCAGGGCAAGGAAGTGGTACTGCTGGACTTTGCTGCAGCTGGAGGGGAG
CTCGGCTGGCTCACACACCCGTATGGCAAAGGGTGGGACCTGATGCAGAACATCATGAAT
GACATGCCGATCTACATGTACTCCGTGTGCAACGTGATGTCTGGCGACCAGGACAAGTGG
CTCCGCACCAACTGGGTGTACCGAGGAGAGGCTGAGCGTATCTTCATTGAGCTCAAGTTT
ACTGTACGTGACTGCAACAGCTTCCCTGGTGGCGCCAGCTCCTGCAAGGAGACTTTCAAC
CTCTACTATGCCGAGTCGGACCTGGACTACGGCACCAACTCCAGAAGCGCCTGTTCAAC
AAGATTGACACCATTGCGCCGATGAGATCACCGTCAGCAGCGACTTCGAGGCACGCCAC
GTGAAGCTGAACGTGGAGGAGCGCTCCGTGGGGCCGCTCACCCGCAAAGGCTTCTACCTG
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CCTTCCCTGGCCACTGTGGCCGGCACCTGTGTGGACCATGCCGTGGTGCCACCGGGGGT
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CTGTGCCAGGCAGGCTACGAGAAGGTGGAGGATGCCTGCCAGGCTGCTCGCCTGGATTT
TTAAGTTTGAGGCATCTGAGAGCCCCTGCTTGGAGTGCCTGAGCACACGCTGCCATCC
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GCCAGTGTGCGCTACTCGGAGCCTCCTCACGGACTGACCCGCACCAAGTGTGACAGTGAAG
GACCTGGAGCCCCACATGAACTACACCTTACCCTGGAGGCCGCAATGGCGTCTCAGGC
CTGTAACAGCCGAGCTTCCGTACTGCCAGTGTGAGCATCAACCAGACAGAGCCCCC
AAGGTGAGGCTGGAGGGCCGAGCACCCTCGCTTAGCGTCTCCTGGAGCATCCCCCG
CCGCAGCAGAGCCGAGTGTGGAAGTACGAGGTCACTTACCGAAGAAGGGAGACTCCAAC
AGCTACAAATGTGCGCCGACCGAGGGTTCTCCGTGACCTGGACGACCTGGCCCCAGAC

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ACCACCTACCTGGTCCAGGTGCAGGCACTGACGCAGGAGGGCCAGGGGGCCGGCAGCAAG
 GTGCACGAATCCAGACGCTGTCCCGGAGGGATCTGGCAACTTGGCGGTGATTGGCGGC
 GTGGCTGTGCGTGTGGTCTGCTTCTGGTGTGGCAGGAGTTGGCTTCTTTATCCACCGC
 AGGAGGAAGAACCAGCGTGCCCGCCAGTCCCGGAGGACGTTTACTTCTCCAAGTCAGAA
 CAACTGAAGCCCTGAAGACATACGTGGACCCACACATATGAGGACCCCAACCAGGCT
 GTGTTGAAGTTCACTACCGAGATCCATCCATCCTGTGTCACTCGGCAGAAGGTGATCGGA
 GCAGGAGAGTTTGGGAGGTGTACAAGGGCATGCTGAAGACATCCTCGGGGAAGAAGGAG
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 GCTGCCCGCAACATCCTCGTCAACAGCAACCTGGTCTGCAAGGTGTCTGACTTTGGCCTG
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 CTCAAGACCTGGCTGACTTTGACCCCGCGTGTCTATCCGGCTCCCCAGCACGAGCGGC
 TCGGAGGGGGTGCCTTCCGCACGGTGTCCGAGTGGCTGGAGTCCATCAAGATGCAGCAG
 TATACGGAGCACTTATGGCGCCGGCTACACTGCCATCGAGAAGGTGGTGCAGATGACC
 AACGACGACATCAAGAGGATTGGGGTGGCGTCCCGGCCACCAGAAGCGCATCGTCTAC
 AGCCTGCTGGGACTCAAGGACCAGGTGAACACTGTGGGATCCCCATCTGA

Clone variation with respect to NM_004431.3
 1937 a=>t;2876 c=>t

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_004431 unedited
 CCGCCGTTGAGCAATGGGCGGTAGCGTGTACGGCTGGGAGGTCTATATAAGCAGAGCTCATTTAGGTGA
 CACTATAGAATAACAAGCTACTTGTCTTTTTGCAGCGGCCGCAATTCGGCAGAGGGGCAGGAGGGCAG
 AAGTTGCGCGCAGGCCGGCGGGGAGCGGACACCGAGGCCGGCGTGCAGGCGTGCGGGTGTGCGGGAG
 CCGGGCTCGGGGGATCGGACCGAGAGCGAGAAGCGCGGCATGGAGTCCAGGCAGCCCGCCTGCTTC
 GCCCTGCTGTGGGGTGTGCGCTGGCCGCGGGCCGCGGGCGCAGGGCAAGGAAGTGGTACTGCTGG
 ACTTTTGTGTCAGCTGGAGGGGAGGCTCCGGCTTGGCTCACAAACCCCGTATGGCAAAGGGTGGGAACC
 TGGATGCCAAAACATCTGGAATGACTTGGCCGTTCTACTGGTCTTCCGGTTGCACCTGGTGGTGGCCGA
 CCAGACCAATGGGCTTCGCAACCACTGGGGGGTACCGAGGGAGAGGCTAAGCTATTTCTATTTGGAGC
 CAAAGTACTTTGTACGGACTCCACACGCTCTCCCTGGGGGCCACCCTTCTCGGCGAAAACATTTACC
 CTTCAATTGGGCGAATGGCCGCATGGGATATAGGACCAAATTTTAGAAAAGCCCGTGTACCAAGATAGT
 CACACTTTGCCCCGAAGATTTCTCGCAGCGACATTTAGAGCCCCTGAGATGTATGAGAAGACTCC
 TCGTGGCTCACCCCAAGAGGCTTACATGGCTCCCGAGATCGTGTGCTGTGCGCGCTCCCCGCTGGTA
 CTACAAAAGTGCCACAGCTGTGGGCGCGCACATTCTGACACCTCGCGGTGTGAGCCTCCTGCGCCACTG
 GCGACAGCATTGTCAACTCTGGTGTCCCGTGTGAAAACCAAGTCG

Kinase Domain Sequence:

>SC323574 kinase domain raw sequence. By performing [BLASTX](#) analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation
 YGGRCAGRAGTTTGGGAGGTGTACAAGGGCATGCTGAAGACATCCTCGGGGAAGAAGGAGGTGCCGGT
 GGCCATCATGACGCTGAAAGCCGGCTACACAGAGAAGCAGCGAGTGGACTTCTCGGCGAGGCCGGCATC
 ATGGGCCAGTTTACGCCACCACAACATCATCCGCCTAGAGGGCGTCACTCCTCAATAACAAGCCATGATGA
 TCATCACTGAGTACATGGAGAATGGGGCCCTGGACAAGTTCCTTC

Restriction Sites:

Please inquire

ACCN:	NM_004431
Insert Size:	3000 bp
OTI Disclaimer:	<p>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.</p> <p>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</p>
OTI Annotation:	Kinase deficit mutant (K646M)
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_004431.2 , 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

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]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.