

Product datasheet for **SC323681**

Eph receptor A7 (EPHA7) (NM_004440) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Eph receptor A7 (EPHA7) (NM_004440) Human Untagged Clone
Tag:	Tag Free
Symbol:	Eph receptor A7
Synonyms:	EHK-3; EHK3; EK11; HEK11
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC323681 sequence for NM_004440 edited (data generated by NextGen Sequencing)

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ATGGTTTTTCAAACCTCGGTACCCTTCATGGATTATTTTATGCTACATCTGGCTGCTCCGC
TTTGCACACACAGGGGAGGCGCAGGCTGCGAAGGAAGTACTACTGCTGGATTCTAAAGCA
CAACAAACAGAGTTGGAGTGGATTTCTCTCCACCCAATGGGTGGGAAGAAATTAGTGGT
TTGGATGAGAACTATACACCGATACGAACATACCAGGTGTCCAAGTCATGGAGCCCAAC
CAAAACAACCTGGCTGCGGACTAACTGGATTTCCAAAGGCAATGCACAAAGGATTTTTGTA
GAATTGAAATTCACCTGAGGGATTGTAACAGTCTTCTGGAGTACTGGGAACCTGCAAG
GAAACATTTAATTTGACTATTATGAAACAGACTATGACACTGGCAGGAATATAAGAGAA
AACCTCTATGAAAAATAGACACCATTGCTGCAGATGAAAGTTTTACCCAAGGTGACCTT
GGTGAAAGAAAGATGAAGCTTAACACTGAGGTGAGAGAGATTGGACCTTTGTCCAAAAG
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TACTACAAGAAGTGTGGTCCATTATTGAGAACTTAGCTATCTTTCCAGATACAGTGACT
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GAAGCGGAAAACGCCCCAGGATGCACTGCAGTGCAGAGGAGAAATGGTTAGTGCCCAT
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CGTGGGTCTACAAGTCTTCTCTCAAGATCTTCAGTGTCTCGTTGTCCAACCTCACAGT
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AACATCAACCAAAACCACAGTAAGTTTGAATGGAGTCTCCTCTGCAGACAATGGGGGAAGA
AACGATGTGACCTACAGAATATTGTGTAAGCGGTGCAGTTGGGAGCAGGGCAATGTGTT
CCCTGTGGGAGTAACATTGGATACATGCCCCAGCAGACTGGATTAGAGGATAACTATGTC
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TACGAGAAAGATCAAAGGGAACGGACCTACTCAACAGTAAAACCAAGTCTACTTCAGCC

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TCCATTAATAATCTGAAACCAGGAACAGTGTATGTTTTCCAGATTCGGGCTTTTACTGCT
 GCTGGTTATGGAAATTACAGTCCCAGACTTGATGTTGCTACACTAGAGGAAGCTACAGGT
 AAAATGTTTGAAGCTACAGCTGTCTCCAGTGAACAGAATCCTGTTATTATCATTGCTGTG
 GTTGCTGTAGCTGGGACCATCATTTTGGTGTTCATGGTCTTTGGCTTCATCATTGGGAGA
 AGGCACTGTGGTTATAGCAAAGCTGACCAAGAAGGCGATGAAGAGCTTTACTTTTCATTNN
 NNNNNNNNNNGCACCAAAACCTACATTGACCCTGAAACCTATGAGGACCCAAATAGAGCT
 GTCCATCAATTCGCCAAGGAGCTAGATGCCTCCTGTATTAATAATGAGCGTGTGATTGGT
 GCAGGAGAATTCGGTGAAGTCTGCAGTGGCCGTTTGAAACTTCCAGGGAAAAGAGATGTT
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 TGTGAAGCAAGCATCATGGGGCAGTTTGACCACCCAAATGTTGTCCATTTGGAAGGGTT
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 GGAATTGCTGCTGGAATGAGATATTTGGCTGATATGGGATATGTTACAGGGACCTTGCA
 GCTCGCAATATTCTTGTCAACAGCAATCTCGTTTGTAAAGTGTCAGATTTTGGCCTGTCC
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 GAGGATGTGATGAGTTTAGGGATCACACTGGTTGGTTCATCAAAAGAAAATCATGAGCAGC
 ATTCAGACTATGAGAGCACAAATGCTACATTTACATGGAAGTGGCATTCAAGTGTGA

Clone variation with respect to NM_004440.3

198 c=>a;981 g=>a;1341 t=>c;1799 t=>n;1800 t=>n;1801 a=>n;1802 a=>n;1803 a=>n;1804
 t=>n;1805 t=>n;1806 t=>n;1807 c=>n;1808 c=>n;1809 a=>n;1810 g=>n;2076 g=>a;2749 c=>t

**5' Read Nucleotide
 Sequence:**

>OriGene 5' read for mutant NM_004440 unedited

CCCGCCGTCTCAGCAATGGGCGGTAGGCCTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTG
 AACCGTCAGAATTTTGAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCAAAACCGGTGC
 GAGCGAACAGGAGTGGGGGGAAATTAATAAAAGCTAAACGTGGAGCAGCCGATCGGGGACCGAGAAGGG
 GAATCGATGCAAGGAGCACAATAAAACAAAAGCTACTTCGGAACAACAGCATTAAAAATCCACGACTC
 AAGATAACTGAAAACCTAAAAATAAACCTGCTCATGCACCATGGTTTTTCAAACCTGGGTACCCTTCAT
 GGATTATTTTATGCTACATCTGGCTGCCTCCCGCTTTGCCACACCCAGGGGAAGCCCGCAAGGCTTGC
 CGAAGGAGGTAACTATACTGTGCTTGGATATTCTTAAAGCCACAACACAACAGAGAGTTGGGAGGTGGG
 AATTCCTCTCTCACACCCATGTGGGTGTGGGAAGAGAAATTAATTGGTTGGATTAGAAACACATAAAC
 CCGGATCAGAGAAATAACCAAGGGTGTGCACAGTCTCAGGGAGCCCCACAAAAAACTGGGCGGCGGGA
 CTATCTGGATTTTTCAAAGCGCAATGCACAAGAGATTTTGTGGAAAATGAAATTTTACCCGAGGGGGTGT
 ATCACACCTCCTCGTAGTGCAAGTGGAAATGCAGGAGACACATATATGGGTCTATGAAACCGACTATTAT
 GACTCGCGCAGTATATAAGAAACATCTTGTGTAATAAACACCTGTTGCGAGAAGATTTATCCCGTGA
 CATGTGAGAGATAGACTACACCTAGTGAGAGAGATGAGCCTCTGTCAAGAGTCATCTGCTCAGTGAAG
 GGTGCAGCACTGTAGTGAGGATACCAAGTCGTCCTCTTGACATACCTCTTCGGACCTGACGCTGCAGA
 TCCTATTCCAGTCTGGCAA

Kinase Domain Sequence:	>SC323681 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 CGKKCAWTGGTGCAGGAGATTCCGGTGAGTCTGCAGTGGCCGTTTGAAGTCCAGGGAAAAGAGATGTTGC AGTAGCCATAATGACCCGTGAAAGTTGGTTACACAGAAAAACAAAGGAGAGACTTTTTGTGTGAAGCAAGC ATCATGGGGCAGTTTGACCACCCAAATGTTGTCCATTTGGAAGGGTTGTTACAAGAGGGAAACCAAGTCA TGATAGTAATAGAGTTCATGGAAAATGGAGCCCTAGATGCATTTC
Restriction Sites:	Please inquire
ACCN:	NM_004440
Insert Size:	6600 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 kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell, 2008 May p536-548.
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_004440.2 , NP_004431.1
RefSeq Size:	5229 bp
RefSeq ORF:	2997 bp
Locus ID:	2045
UniProt ID:	Q15375

Cytogenetics:	6q16.1
Domains:	kinase, EPH_Ibd, TyrKc, SAM, S_TKc, FN3
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Axon guidance
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. Increased expression of this gene is associated with multiple forms of carcinoma. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2013]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.</p>