

## Product datasheet for **SC117354**

### Eph receptor A4 (EPHA4) (NM\_004438) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Eph receptor A4 (EPHA4) (NM_004438) Human Untagged Clone
Tag:	Tag Free
Symbol:	Eph receptor A4
Synonyms:	EK8; HEK8; SEK; TYRO1
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:**

```
>OriGene ORF sequence for NM_004438 edited
ATGGCTGGGATTTTCTATTTTCGCCCTATTTTCGTGTCTCTTCGGGATTTGCGACGCTGTC
ACAGGTTCCAGGGTATACCCCGGAATGAAGTTACCTTATTGGATTCCAGATCTGTTTCAG
GGAGAACTTGGGTGGATAGCAAGCCCTCTGGAAGGAGGGTGGGAGGAAGTGAGTATCATG
GATGAAAAAATACACCAATCCGAACCTACCAAGTGTGCAATGTGATGGAACCCAGCCAG
AATAACTGGCTACGAAGTATTGGATCACCCGAGAAGGGGCTCAGAGGGTGTATATTGAG
ATTAATTCACCTTGAGGGACTGCAATAGTCTTCCGGGCGTCATGGGGACTTGCAAGGAG
ACGTTTTAACCTGTACTACTATGAATCAGACAACGACAAAAGAGCGTTTTATCAGAGAGAAC
CAGTTTGTCAAAATTGACACCATTGCTGCTGATGAGAGCTTACCCCAAGTGGACATTGGT
GACAGAATCATGAAGCTGAACACCGAGATCCGGGATGTAGGGCCATTAAGCAAAAAGGGG
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TATAAAAAGTGTCCACTCACAGTCCGCAATCTGGCCAGTTTCTGACACCATCACAGGG
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GATGTGCCAAAAATGACTGTGGGGCAGATGGTGAATGGCTGGTACCCATTGGCAACTGC
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TGGGAAGGAGCCACCTCGTGCACCTGTGACCGAGGCTTTTTTCAGAGCTGACAACGATGCT
GCCTCCATGCCCTGCACCCGTCCACCATCTGCTCCCTGAACTTGATTTCAAATGTCAAC
GAGACATCTGTGAAGTGGAAATGGAGTAGCCCTCAGAATACAGGTGGCCGCCAGGACATT
TCCTATAATGTGGTATGCAAGAAATGTGGAGCTGGTGACCCAGCAAGTGCCGACCTGT
GGAAGTGGGGTCCACTACACCCACAGCAGAATGGCTTGAAGACCACCAAAGTCTCCATC
ACTGACCTCCTAGCTCATACCAATTACACCTTTGAAATCTGGGCTGTGAATGGAGTGTCC
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GTAATTCTCATTGCAGCTTTTGTATCAGCCGGAGACGGAGTAAATACAGTAAAGCCAAA
CAAGAAGCGGATGAAGAGAAACATTTGAATCAAGGTGTAAGAACATATGTGGACCCCTT
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ATTAAGATTGAAAAAGTTATAGGAGTTGGTGAATTTGGTGAAGTATGCAGTGGGGCTCTC
AAAGTGCCTGGCAAGAGAGAGATCTGTGTGGCTATCAAGACTCTGAAAGCTGGTTATACA
GACAAACAGAGGAGAGACTTCTGAGTGAAGCCAGCATCATGGGACAGTTTGACCATCCG
AACATCATTCACTTGGAAAGCGTGGTCACTAAATGTAACCAAGTAAATGATCATAACAGAG
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TGGCAGAAGGAGAGGAGCGACAGGCCTAAATTTGGGCAGATTGTCAACATGTTGGACAAA
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GCCTTGTGGATCCAAGCTCCCCTGAATTTCTCTGTGTGGTATCAGTGGGCGATTGGCTC
CAGGCCATTAAAATGGACCGGTATAAGGATAACTTACAGCTGTGGTTATACCACACTA
GAGGCTGTGGTGCACGTGAACAGGAGGACCTGGCAAGAATTGGTATCACAGCCATCACG
CACCAGAATAAGATTTTGGAGCAGTGTCCAGGCAATGCGAACCCAAATGCAGCAGATGCAC
GGCAGAATGGTCCCGTCTGA
```

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_004438 unedited  
 GTAATACGAACCTACTATAGGGCGGCCGGAATTCGCACGAGGGCAGCGTTGGCACCGGC  
 GAACCTGGCTGGGATTTTCTATTTTCGCCCTATTTTCGTGTCTCTTCGGGATTTGCGACGC  
 TGTACAGGTTCCAGGGTATACCCCGCAATGAAGTTACCTTATTGGATTCCAGATCTGT  
 TCAGGGAGAACTTGGGTGGATAGCAAGCCCTCTGGAAGGAGGGTGGGAGGAAGTGAGTAT  
 CATGGATGAAAAAATACACCAATCCGAACCTACCAAGTGTGCAATGTGATGGAACCCAG  
 CCAGAATAACTGGCTACGAACTGATTGGATCACCCGAGAAGGGGCTCAGAGGGTGTATAT  
 TGAGATTAATACCTTGAGGGACTGCAATAGTCTTCCGGCGTCATGGGGACTTGCAA  
 GGAGACGTTTAACTGTACTACTATGAATCAGACAACGACAAAGAGCGTTTCATCAGAGA  
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 TGGTGACAGAATCATGAAGCTGAACACCAGATCCGGGATGTAGGGCCATTAAGCAAAAA  
 GGGGTTTTACCTGGCTNTTCANGATGTGGGGGCCTGCATCGCCCTGGTATCAGTCCGTGT  
 GTTCTATAAAAAGTGTCCACTCACAGTCCGCAATCTGGCCAGTTTCTGACACCATCAC  
 AGGGGCTGATACGCTCTCCCTGGGGGAAGTTCGAGGCTCTGTGTCCACAACCTAAAGAG  
 AAAGATGTGCCAAATGTACTGGTGGGCAATGGTGAAGGGCTGGACCCATTGACTGCT  
 CTATNCACGCTGGCATGAGAGACGACGGAGATGCCAACTTGAATTTGGATTTCCAAGGCT  
 TTTCCGGATC

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_004438 unedited  
 CGCGGCCCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTAAATTCAGAGGCGAAGA  
 CGAAGTAAAAAATGCAGTCTTCAATTAAGTGCATGGATGAGGTAAACTAATTTCAAG  
 AGTTTTGAGTTTATTCAGTACTGGCTCAGACGGGAACCATCTGCCGTGCATCTGCTGCA  
 TTTGGGTTTCGCATTGCCTGGACACTGCTCAAAATCTTATCTGGTGCATGATGGCTGTGA  
 TACCAATCTTGCCAGGTCCTCCTGGTTCACGTGCACCACAGCCTCTAGTGTGGTATAAC  
 CAGCAGCTGTGAAGTTATCCTTATACCGGTCCATTTTAAATGGCCTGGAGCCAATCGCCCA  
 CTGATACCACAGCAGAGAATTCAGGGGAGCTTGGATCCAACAAGGCAGTGTAGGTCTGG  
 AGCTCTCCGTCCCTGCTCTTCAAGCTGTTGGGGTTCGGGATGATTTTGTCCAACATGT  
 TGACAATCTGCCCAAATTTAGGCCTGTCGCTCCTCTCCTTCTGCCAGCAGTCTAGCATCA  
 GCTGGTGGAGCGCAATGGGGCAGTCCATTGGAGGGGTAACCGATAGCCTTCTCAATGG  
 CTTAATCACATCTTGATTGGACATATCCCAATAGGGCCTCTCCCGTACGACATCACTT  
 CCCACATAACGATTCCATAGCTCCATACATCACTTGTGATGTGAATTTACGATAGGCAA  
 TTGCTTCTGGCGCAGTCCACCGGATAGGAATCTTGCCACCCTGGTGGTGAAGCTGCTT  
 CCGGATCATCCCTCAGCACTCGGGACATGCCANAATCAGACACTTTCAGACCAAGTTGC  
 CTGTACCAGGATGTTCCCGTGCGCCAGATCACGATGCACATAGCTCATATCAGAAAATA  
 CTTTCATCCAGNACCAATGCCACGAGCATGCCACAGCTGATGACTGTAATCGCCATCTTT  
 TTCCTGAGATGA

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_004438

**Insert Size:**

3000 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](mailto: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](#)

**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\\_004438.3](#), [NP\\_004429.1](#)

**RefSeq Size:** 6364 bp

**RefSeq ORF:** 2961 bp

**Locus ID:** 2043

**UniProt ID:** [P54764](#)

**Cytogenetics:** 2q36.1

**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. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2015]

Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1 and 2 both encode the same isoform (a). 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.