

Product datasheet for **RG213206**

Eph receptor A5 (EPHA5) (NM_004439) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Eph receptor A5 (EPHA5) (NM_004439) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Eph receptor A5
Synonyms:	CEK7; EHK-1; EHK1; EK7; HEK7; TYRO4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG213206 representing NM_004439 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCGGGGCTCGGGGCCCGGGGTGCGGGACACCGCGGCCCAAGCGGCGGGCGACACCCCATCA
CCCCAGCGTCCCTGGCCGGCTGCTACTCTGCACCTCGACGGGCTCCCTCTGGACGTGCCTTCTCTGTG
CGCCGACTCCGGACCTCCTGGCCAGCCCCAGCAACGAAGTGAATTTATTGGATTACGCACTGTCATG
GGGACCTGGGATGGATTGCTTTTCAAAAAATGGGTGGGAAGAGATTGGTGAAGTGGATGAAAATTATG
CCCCTATCCACACATACCAAGTATGCAAAGTGATGGAACAGAATCAGAATAACTGGCTTTTGACCAGTTG
GATCTCCAATGAAGGTGCTTCCAGAATCTTCATAGAACTCAAATTTACCCTGCGGGACTGCAACAGCCTT
CCTGGAGGACTGGGACCTGTAAGGAAACCTTTAATATGTATTACTTTGAGTCAGATGATCAGAATGGGA
GAAACATCAAGGAAAACCAATACATCAAAATGATACCATTGCTGCCGATGAAAGCTTTACAGAACTTGA
TCTTGGTGACCGTGTATGAAACTGAATACAGAGGTCAGAGATGTAGGACCTCTAAGCAAAAAGGGATTT
TATCTTGCTTTTCAAGATGTTGGTGCTTGCACTTCTGCTGTTTCTGTGCGTGTATACTATAAAAAATGCC
CTTCTGTGGTACGACACTGGCTGTCTCCCTGACACCATCACTGGAGCTGATTCTTCCCAATTGCTCGA
AGTGTCAAGGCTCCTGTGTCAACCATCTGTGACCGATGAACCTCCCAAAATGCACTGCAGCGCCGAAGGG
GAGTGGCTGGTGCCCATCGGAAATGCATGTGCAAGGCAGGATATGAAGAGAAAAATGGCACCTGTCAAG
TGTGCAGACCTGGGTTCTTCAAAGCCTCACCTCACATCCAGAGCTGCGGCAAATGTCCACCTCACAGTTA
TACCCATGAGGAAGCTTCAACCTCTGTGTCTGTGAAAAGGATTATTTACAGGAGAGAGTCTGATCCACCC
ACAATGGCATGCACAAGACCCCCCTCTGCTCCTCGGAATGCCATCTCAAATGTTAATGAAACTAGTGCTT
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GAACCAGATCGTCCCAATGGAATCATCCTAGAGTATGAAATCAAGTATTTTAAAAAGGACCAAGAGACCA
 GCTACACGATTATCAAATCTAAAGAGACAACTATTACTGCAGAGGGCTTAAAACAGCTTCAGTTTATGT
 CTTCCAAATTCGAGCACGTACAGCAGCAGGCTATGGTGTCTTCAGTCAAGATTTGAGTTTAAAACACC
 CCAGTGTTCGAGCATCCAGCGATCAAAGCCAGATTCTGTAAATGCTGTGTCTGTGACAGTGGGAGTCA
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 AAGCAAGTATCATGGGACAGTTTGTATCCTAACATCATCCATTTAGAAGGTGTGGTGACCAAAAAGTAA
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 ATGCTGGATTGCTGGCAGAAAGAGCGAAATAGCAGGCCCAAGTTTGTGAAATAGTCAACATGTTGGACA
 AGCTGATACGTAACCAAGTAGTCTGAAGACGCTGGTTAATGCATCTGCAGAGTATCTAATTTATTGGC
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 CGGTATACAGAGATTTTTCATGAAAAATGGATACAGTTCAATGGACGCTGTGGCTCAGGTGACCTTGGAGG
 ATTTGAGACGGCTTGGAGTGACTTGTGCGTCCACCAGAAGAAGATCATGAACAGCCTTCAAGAAATGAA
 GGTGCAGCTGGTAAACGGAATGGTGCCATTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG213206 representing NM_004439
 Red=Cloning site Green=Tags(s)

MRGSGPRGAGHRRPPSGGGDTPITPASLAGCYSAPRRAPLWTCLLLCAALRLLASPSNEVNLDSRTVM
 GDLGWIAPFKNGWEEIGEVDENYAPIHTYQVCKVMEQNQNNWLLTSWISNEGASRIFIELKFTLRDCNSL
 PGGTGTCKETFNMYFESDDQNGRNIKENQYIKIDTIAADESFTELDLGDVRMKNLNTVDRDVGPLSKKGF
 YLAFQDVGACIALVSVRVYKCKPSVVRHLAVFPDITGADSSQLLEVSGSCVNHVSTDEPPKMHCSAEG
 EWLVPVIGKCMCKAGYEEKNGTCQVCRPGFFKASPHIQSCGKCPPHSYTHEEASTSCVCEKDYFRRESPP
 TMACTRPPSAPRNAISNVNETSVFLEWIPPADTGGRKDVSYIACKKCNHAGVCEECGGHVRYLPRQSG
 LKNTSVMVMDLLAHTNYTFFIEAVNGVSDLSPGARQYVSVNVTNQAAPSPVTNVKKGKIAKNSISLSWQ
 EPDRPNGIILEYEIKYFEKDQETSYYTIKSKETTITAEGLKPASVYVVFQIRARTAAGYGVFSRRFEFETT
 PVFAASSDQSQIPVIAVSVTVGVILLAVVIGVLLSGSCCECGGRASSLCAVAHPSLIWRCGYSKAKQDP
 EEEKMHFNHNGHIKLPVVRTYIDPHTYEDPNQAVHEFAKEIEASCITIERVIGAGEFGEVCSGRLKLPGR
 ELPVAIKTLKVGYTEKQRRDFLGEASIMGQFDHPNIIHLEGVTKSKPVMIVTEYMENGLDFTLKKNDG
 QFTVIQLVGMRLGISAGMKYLSDMGYVHRDLAARNILINSNLVCKVSDFGLSRVLEDDPEAAATTRGGKI
 PIRWTAPEAIAFRKFTSASDVWSYGIWMEVVSYGERPYWEMTNQDVIKAVEEGYRLPSPMDCPAALYQL
 MLDCWQKERNRPFDEIVNMLDKLIRNPSSLKTLVNASCVRVSNLLAEHSPLGSGAYRSVGEWLEAIKMG
 RYTEIFMENGYSSMDAVAQVTLLEDLRRLLGVTLVGHQKIMNSLQEMKVQLVNGMVP

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_004439

ORF Size: 3111 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:

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_004439.4](#), [NP_004430.3](#)

RefSeq Size: 3349 bp

RefSeq ORF: 3114 bp

Locus ID: 2044

UniProt ID: [P54756](#)

Cytogenetics: 4q13.1-q13.2

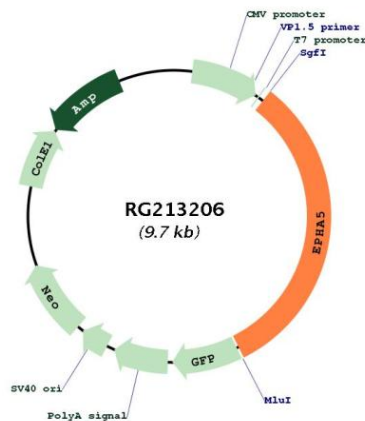
Domains: pkinase, EPH_lbd, TyrKc, SAM, S_TKc, FN3

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. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Aug 2013]

Product images:



Circular map for RG213206