

Product datasheet for **RC600042**

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:	DDK-His
Symbol:	Eph receptor A5
Synonyms:	CEK7; EHK-1; EHK1; EK7; HEK7; TYRO4
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5-DDK-His (PS100068)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RC600042 representing leader sequence plus the extracellular domain region of NM_004439

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

GTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCTGGTACCGAGGAGATCCGCCGCCG
CGATCGCC

ATGCGGGGCTCGGGGCCCGGGGTGCGGGACGCCGGCGGCCCAAGCGGCGGCGGACACCCCATCA
CCCCAGCGTCCCTGGCCGGCTGCTACTCTGCACCTCGACGGGCTCCCTCTGGACGTGCCTTCTCCTGTG
CGCCGCACTCCGGACCCTCCTGGCCAGCCCAGCAACGAAGTGAATTTATTGGATTACGCACTGTCATG
GGGACCTGGGATGGATTGCTTTTCAAAAAATGGGTGGGAAGAGATTGGTGAAGTGGATGAAAATTATG
CCCCTATCCACATACCAAGTATGCAAAGTATGGAACAGAATCAGAATAACTGGCTTTTGACCAGTTG
GATCTCCAATGAAGGTGCTTCCAGAATCTTCATAGAATCAAATTTACCCTGCGGGACTGCAACAGCCTT
CCTGGAGGACTGGGACCTGTAAGGAAACCTTTAATATGTATTACTTTGAGTCAGATGATCAGAATGGGA
GAAACATCAAGGAAAACCAATACATCAAAATTGATACCATTGCTGCCGATGAAAGCTTTACAGAACTTGA
TCTTGGTGACCGTGTATGAAACTGAATACAGAGGTGAGAGATGTAGGACCTCTAAGCAAAAAGGGATTT
TATCTTGCTTTTCAAGATGTTGGTGCTTGCATTGCTCTGTTTCTGTGCGTGTATACTATAAAAAATGCC
CTTCTGTGGTACGACACTTGGCTGTCTTCCCTGACACCATCACTGGAGCTGATTCTTCCCAATTGCTCGA
AGTGTCAGGCTCCTGTGTCAACCATTCTGTGACCGATGAACCTCCCAAAATGCACTGCAGCGCCGAAGGG
GAGTGGCTGGTGGCCATCGGAAATGCATGTGCAAGGCAGGATATGAAGAGAAAAATGGCACCTGTCAAG
TGTGCAGACCTGGGTCTTCAAAGCCTCACCTCACATCCAGAGCTGCGGCAAATGTCACCTCACAGTTA
TACCCATGAGGAAGCTTCAACCTCTGTGTCTGTGAAAAGGATTATTTGAGGAGAGAGTGTATCCACCC
ACAATGGCATGCACAAGACCCCTCTGCTCCTCGGAATGCCATCTCAAATGTTAATGAAACTAGTGTCT
TTCTGGAATGGATTCCCGCTGCTGACACTGGTGGAAAGAAAGACGTGTCATATTATATTGCATGCAAGAA
GTGCAACTCCCATGCAGGTGTGTGTGAGGAGTGTGGCGGTGATGTCAGGTACCTTCCCGCAAAGCGGC
CTGAAAAACACCTCTGTGATGATGGTGGATCTACTCGCTCACACAACTATACTTTGAGATTGAGGCGAG
TGAATGGAGTGTCCGACTTGAGCCAGGAGCCCGGAGTATGTGTCTGTAATGTAACCACAAATCAAGC
AGCTCCATCTCCAGTACCAATGTGAAAAAGGGAAAATGCAAAAAACAGCATCTCTTTGTCTTGGCAA
GAACCAGATCGTCCCAATGGAATCATCCTAGAGTATGAAATCAAGTATTTTAAAAGGACCAAGAGACCA
GCTACACGATTATCAAATCTAAAGAGACAATACTACTGCAGAGGGCTTAAAACAGCTTACGTTTATGT
CTTCAAATTCGAGCACGTACAGCAGCAGGCTATGGTGTCTTCAGTCGAAGATTTGAGTTTAAAACACC
CCAGTGTTCAGCATCCAGCGATCAAAGCCAGATTCT

ACGCGTTCAGGGGACTACAAGGATGACGACGATAAGGGATCTCATCATCACCATCACCATTAATGAGATC
TGGTACCGATATCAAGCTTGTGACTCTAGA

Protein Sequence:

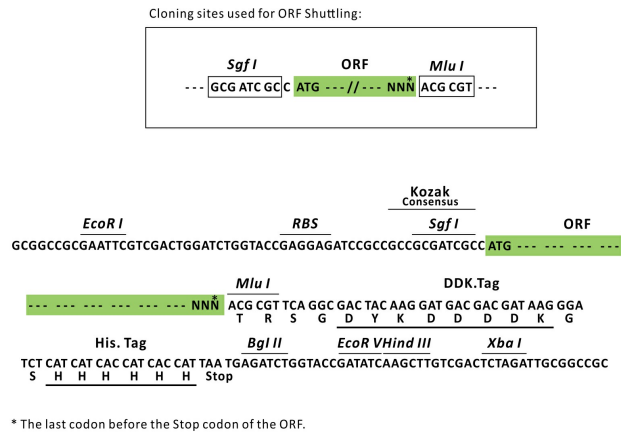
>RC600042 representing signal peptide plus the extracellular domain region of NM_004439

Red=Cloning sites Green= DDK and 6XHIS Tags

MRGSGPRGAGRRRPPSGGGDTPITPASLAGCYSAPRRAPLWTCLLLCAALRLLASPSNEVNLDSRTVM
GDLGWIAFPKNGWEEIGEVDENYAPIHTYQVCKVMEQNQNNWLLTSWISNEGASRIFIELKFTLRDCNSL
PGLGTCKETFNMYFESDDQNGRNIKENQYIKIDTIAADESFTELDLGDVRMKNLNEVRDVGPLSKKGF
YLAFQDVGACIALVSVRVYKCPVVRHLAVFPDITITGADSSQLLEVSGSCVNHSVTDEPPKMHCSEAEG
EWLVPIGKCMCKAGYEEKNGTCQVCRPGFFKASPHIQSCGKPPHSYTHEEASTSCVCEKDYFRRESPPP
TMACTRPPSAPRNAISNVNETSVFLEWIPPADTGGRKDVSYYIACKKCNHAGVCEECGGHVRYLPRQSG
LKNTSVMVDLLAHTNYTFEIEAVNGVSDLSGARQYVSVNVTNQAAPSPVTNVKKGKIAKNSISLSWQ
EPDRPNGIILEYEIKYFEKQETSYSYTIKSKETTITAEGLPASVYVFIQIRARTAAGYGVFSRRFEFETT
PVFAASSDQSQIP

TRSGTRSGDYKDDDDKGSHHHHHH

Chromatograms: https://cdn.origene.com/chromatograms/mk8117_f07.zip
 Restriction Sites: Sgfl-MluI
 Cloning Scheme:



ACCN: NM_004439

ORF Size: 1719 bp

OTI Disclaimer: 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_004439.6](#), [NP_004430.4](#)

RefSeq Size: 8418 bp

RefSeq ORF: 3114 bp

Locus ID:	2044
UniProt ID:	P54756
Cytogenetics:	4q13.1-q13.2
Domains:	ptkinase, EPH_lbd, TyrKc, SAM, S_TKc, FN3
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Axon guidance
MW:	63.2 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. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Aug 2013]</p>