

## Product datasheet for **RG205725**

### Eph receptor A2 (EPHA2) (NM\_004431) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Eph receptor A2 (EPHA2) (NM_004431) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Eph receptor A2
Synonyms:	ARCC2; CTPA; CTPP1; CTRCT6; ECK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG205725 representing NM\_004431  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGCTCCAGGCAGCCCGCGCCTGCTTCGCCCTGCTGTGGGGTGTGCGCTGGCCGGCCGCGCGCG  
 CGCAGGGCAAGGAAGTGGTACTGCTGGACTTTGCTGCAGCTGGAGGGAGCTCGGCTGGCTCACACACC  
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 TCTTCATTGAGCTCAAGTTTACTGTACGTGACTGCAACAGCTTCCCTGGTGGCGCCAGCTCCTGCAAGGA  
 GACTTTCAACCTCTACTATGCCGAGTCGGACCTGGACTACGGCACCAACTCCAGAAGCGCCTGTTACC  
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 GCCAGGGGGCCGAGCAAGGTGCACGAATCCAGACGCTGTCCCGGAGGGATCTGGCACTTGGCGGT  
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**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG205725 representing NM\_004431  
 Red=Cloning site Green=Tags(s)

MELQAARACFALLWGCALAAAAAQQKEVVLDFAAAGGELGWLTHPYGKGWDLMQNIMNDMPIYMSVC  
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 FPETIAGSDAPSLATVAGTCVDHAVVPPGGEEPRMHCADVGEWLVPIGQCLCQAGYEKVEDACQACSPGF  
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 RRKNQRARQSPEDVYFSKSEQLKPLKTYVDPHTYEDPNQAVLKFTTEIHPSCVTRQKVI GAGFGEVYKG  
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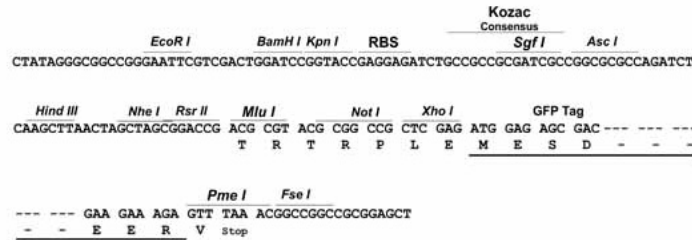
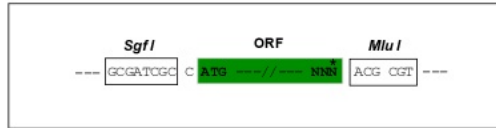
TRTRPLE – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**ACCN:** NM\_004431

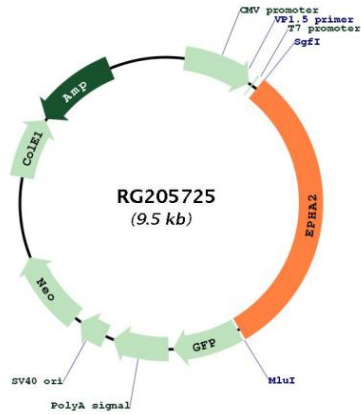
**ORF Size:** 2928 bp

<b>OTI Disclaimer:</b>	<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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_004431.5</a>
<b>RefSeq Size:</b>	3963 bp
<b>RefSeq ORF:</b>	2931 bp
<b>Locus ID:</b>	1969
<b>UniProt ID:</b>	<a href="#">P29317</a>
<b>Cytogenetics:</b>	1p36.13
<b>Domains:</b>	pkinase, EPH_lbd, TyrKc, SAM, S_TKc, FN3
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transmembrane
<b>Protein Pathways:</b>	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]

**Product images:**



Circular map for RG205725