

Product datasheet for **RG213963**

EPHA8 (NM_001006943) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EPHA8 (NM_001006943) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EPHA8
Synonyms:	EEK; EK3; HEK3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG213963 representing NM_001006943
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**

ATGGCCCCCGCCCGGGCCGCTGCCCTGCGCTCTGGGTCGTACGGCCGCGGCGGCGGCCACCT
 GCGTGTCCGCGCGCGCGGAAGTGAATTTGCTGGACACGTGACCATCCACGGGACTGGGGCTGGCT
 CACGTATCCGGCTCATGGGTGGGACTCCATCAACGAGGTGGACGAGTCTTCCAGCCATCCACACGTAC
 CAGGTTTGCAACGTCATGAGCCCCAACAGAACAAGTGGTGGCAGGAGTGGTCCCCGAGACGGCG
 CCCGGCGCTCTATGCTGAGATCAAGTTTACCCTGCGGACTGCAACAGCATGCCTGGTGTGCTGGGCAC
 CTGCAAGGAGACCTTCAACCTCTACTACCTGGAGTGGACCGGACCTGGGGGCCAGCACACAAGAAAGC
 CAGTTCCTCAAAATCGACACATTGCGGGCGACGAGAGCTTACAGGTGCCGACCTTGGTGTGCGGCGTC
 TCAAGCTCAACACGAGGTGCGCAGTGTGGTCCCTCAGCAAGCGGGCTTCTACCTGGCCTTCCAGGA
 CATAGGTGCCTGCCTGGCCATCCTCTCTCCGATCTACTATAAGAAGTCCCTGCCATGGTGCCTCAAT
 CTGGTGCCTTCTCGGAGGACGTGACGGGGCCGACTCGTCTCACTGGTGGAGGTGAGGGGCCAGTGCG
 TGCGGCACTCAGAGGAGCGGGACACACCAAGATGTAAGTGCAGCGCGGAGGGCGAGTGGCTCGTGCCAT
 CGGCAATGCGTGTGAGTGCCGGCTACGAGGAGCGCGGGATGCCTGTGTGGCTGTGAGCTGGGCTTC
 TACAAGTCAGCCCTGGGACGAGTGTGTGCCGCTGCCCTCCACAGCCACTCCGACGTCCAGCCG
 CCCAAGCTGCCACTGTGACCTCAGTACTACCGTGCAGCCCTGGACCCGCCGCTCCTCAGCTGCACCCG
 GCCACCTCGGCACAGTGAACCTGATCTCCAGTGTGAATGGGACATCAGTACTCTGGAGTGGGCCCCCT
 CCCCTGGACCCAGGTGGCCGAGTGACATCACCTACAATGCCGTGTGCCGCCGCTGCCCTGGGCACTGA
 GCCGTCGCGAGGATGTGGGAGCGGCACCCGCTTTGTGCCAGCAGACAAGCCTGGTGCAGGCGAGCCT
 GCTGGTGGCCAACTGCTGGCCACATGAATACTCTTCTGGATCGAGGCCGTAATGGCGTGTCCGAC
 CTGAGCCCGAGCCCGCGGGCGCTGTGGTCAACATACCACGAACAGGAGGTAGGCGGAGAACT
 CCGTCCCGCAGCGTCTGGTCCCCAGCTTCCCTGCCTCAGACCCATCCAGGGATCAGAGCTCTGCCG
 GGACGTGCTGTGGCCTTAGGCAAGTGCCTCTTGGCCCTGCGCTCTCACCAGGACCCAGAGCTGGAG
 GCTCTTCATTGCCTT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG213963 representing NM_001006943
 Red=Cloning site Green=Tags(s)

MAPARGRLPPALWVVTAAAAAATCVSAARGEVNLLDTSTIHGDWGLTYPAHGWDSEINEVDESFPQPIHTY
 QVCNVMSPNQNNWLRTSWVPRDGARRVYAEIKFTLRDCNSMPGLGTCKETFNLYLES DRDLGASTQES
 QFLKIDTIAADESFTGADLGVRRLLNTEVRSVGPLSKRGFYLAQDQIGACLAAILSLRIYKKCPAMVRN
 LAAFSEAVTGADSSSLVEVRGQCVRHSEERDTPKMYCSAEGEWLVPIGKCVCSAGYEERRDACVACELGF
 YKSAPGDQLCARCPPHSHSAAPAAQACHCDLSYYRAALDPPSSACTRPPSAPVNLISVNGTSVTLEWAP
 PLDPGGRSDITYNAVCRRCPWALSRCEACGSGTRFVPQQTSLVQASLLVANLLAHMNSFWIEAVNGVSD
 LSPEPRRAAVVNITTNQAGRRRNSVPRPGPPASPDPSRDQSSAGDVLWAFRQVPLWPCAPHQDPELE
 ALHCL

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

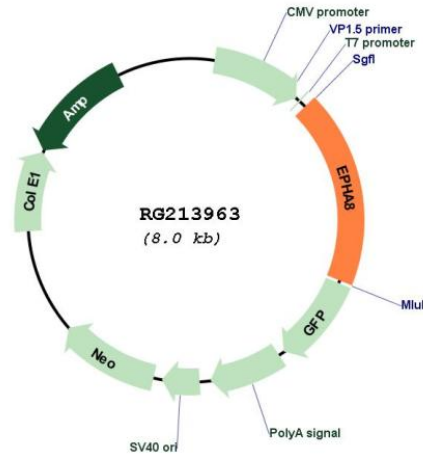


EcoRI *BamHI* *KpnI* *RBS* *Kozac Consensus* *SgfI* *AscI*
 CTATAGGCGCGCGGAATTCTGCTGACTGGATCCGGTACCGAGGAGATCTGCCCGCGGATCGCCGGCGCCGAGATCT

HindIII *NheI* *RsrII* *MluI* *NotI* *XhoI* GFP Tag
 CAAGCTTAAGTCTAGTCGACCGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- --- ---
 T R T R P L E M E S D - - -

PmeI *FseI*
 --- --- GAA GAA AGA GTT TAA ACGCGCGGCCCGGAGCT
 - - E E R V Stop

Plasmid Map:



ACCN: NM_001006943

ORF Size: 1485 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 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:	<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:	<u>NM_001006943.3</u>
RefSeq Size:	1866 bp
RefSeq ORF:	1488 bp
Locus ID:	2046
UniProt ID:	<u>P29322</u>
Cytogenetics:	1p36.12
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Axon guidance
Gene Summary:	<p>This gene encodes a member of 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. The protein encoded by this gene functions as a receptor for ephrin A2, A3 and A5 and plays a role in short-range contact-mediated axonal guidance during development of the mammalian nervous system. [provided by RefSeq, Jul 2008]</p>