

Product datasheet for **RG219514**

TGF beta Receptor I (TGFB1) (NM_004612) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TGF beta Receptor I (TGFB1) (NM_004612) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TGF beta Receptor I
Synonyms:	AAT5; ACVRLK4; ALK-5; ALK5; ESS1; LDS1; LDS1A; LDS2A; MSSE; SKR4; tbetaR-I; TBR-i; TBRI; TGFR-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG219514 representing NM_004612
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGAGGCGGCGGTCTGCTCCGCGTCCCGGCTGCTCCTCCTCGTCTGGCGGCGGCGGCGGCGGCGG
 CGGCGGCGCTGCTCCCGGGGCGACGGCGTTACAGTGTCTGACAAAGACAATTTTAC
 TTGTGTGACAGATGGGCTCTGCTTTGTCTCTGTACAGAGACCACAGACAAAGTTATACACAACAGCATG
 TGTATAGCTGAAATTGACTTAATCCTCGAGATAGGCCGTTTGTATGTGCACCCTCTTCAAAAAGTGGT
 CTGTGACTACAACATATTGCTGCAATCAGGACATTGCAATAAAATAGAAGTTTCAAACTACTGTAAGTC
 ATCACCTGGCCTTGGTCTGTGGAAGTGGCAGCTGTCATTGCTGGACCAGTGTGCTTCGCTGCATCTCA
 CTCATGTTGATGGTCTATCTGCCACAACCGCACTGTCATTACCATCGAGTGCCAAATGAAGAGGACC
 CTTTATTAGATCGCCCTTTTATTTAGAGGGTACTACGTTGAAAGACTTAATTTATGATATGACAACGTC
 AGGTTCTGGCTCAGGTTTACCATTGCTTGTTCAGAGAACAATTGGGAGAACTATTGTGTTACAAGAAAGC
 ATTTGGCAAAGGTCGATTTGGAGAAGTTTGGAGAGGAAAGTGGCGGGGAGAAGAAGTTGCTGTTAAGATAT
 TCTCCTCTAGAGAAGAAGTTCGTGGTCCGTGAGGCAGAGATTTATCAAACTGTAATGTTACGTCATGA
 AAACATCTGGGATTTATAGCAGCAGACAATAAAGACAATGGTACTTGGACTCAGCTCTGGTTGGTGCA
 GATTATCATGAGCATGGATCCCTTTTGTACTTAAACAGATACACAGTTACTGTGGAAGGAATGATAA
 AACTTGTCTGTCCACGGCGAGCGGTCTTGCCCATCTTCACATGGAGATTGTTGGTACCCAAGGAAAGCC
 AGCCATTGCTCATAGAGATTTGAAATCAAAGAATATCTTGGTAAAGAAGAATGAACTTGGCTGATTGCA
 GACTTAGGACTGGCAGTAAGACATGATTCAGCCACAGATACCATTGATATTGCTCCAAACCACAGAGTGG
 GAACAAAAGGTACATGGCCCCGAAGTCTCGATGATTCCATAAATATGAAACATTTTGAATCCTTCAA
 ACGTGCTGACATCTATGCAATGGGCTTAGTATTCTGGGAAATGCTCGACGATGTTCCATTGGTGAAT
 CATGAAGATTACCAACTGCCTTATTATGATCTTGTACCTTCTGACCCATCAGTTGAAGAAATGAGAAAAG
 TTGTTTGTGAACAGAAGTTAAGGCCAAATATCCCAAACAGATGGCAGAGCTGTGAAGCCTTGAGAGTAAT
 GGCTAAAATTATGAGAGAATGTTGGTATGCCAATGGAGCAGCTAGGCTTACAGCATTGCGGATTAAGAAA
 ACATTATCGCAACTCAGTCAACAGGAAGGCATCAAATG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG219514 representing NM_004612
 Red=Cloning site Green=Tags(s)

MEAAVAAPRPRLLLLVLAIAAAAAAAAAALLPGATALQCFCFLCTKDNFTCVTDGLCFVSVTETTDKVIHNSM
 CIAEIDLIPRDRPFVCPSSKTGSVTTTYCCNQDHCNKIELPTTVKSSPGLGPVELAAVIAGPVCVFCIS
 LMLMVIYIHNRTVIHHRVPNEEDPSLDRPFISEGTTLKDLIYDMTTSGSGSGLPLLVRQTIARTIVLQES
 IGKGRFGEVWRGKWRGEEVAVKIFSSREERSWFREAIEYQTVMLRHENILGFIAADNKDNGTWTQLWLV
 DYHEHGS�FDYLNRYTVTVEGMIKLALSTASGLAHLHMEIVGTQGKPAIAHRDLKSKNILVKKNGTCCIA
 DLGLAVRHDSATDTIDIAPNHRVGTKRYMAPEVLDDSIINMKHFESFKRADIYAMGLVFWEIARRCSIGGI
 HEDYQLPYDLPVSDPSVEEMRQVCEQKLRPNIPNRWQSCEALRVMAKIMRECWYANGAARLTALRIKK
 TLSQLSQEQEIKM

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_004612

ORF Size: 1509 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).

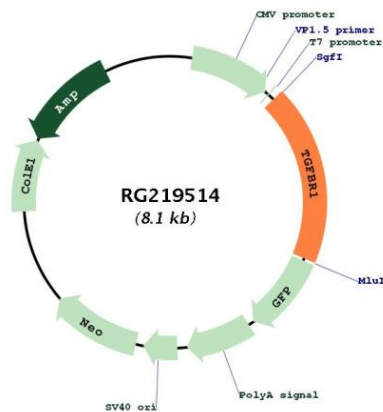
Reconstitution Method:

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_004612.4](#)

RefSeq Size:	6475 bp
RefSeq ORF:	1512 bp
Locus ID:	7046
UniProt ID:	P36897
Cytogenetics:	9q22.33
Domains:	Activin_recp, pkinase, TyrKc, S_TKc, GS
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Adherens junction, Chronic myeloid leukemia, Colorectal cancer, Cytokine-cytokine receptor interaction, Endocytosis, MAPK signaling pathway, Pancreatic cancer, Pathways in cancer, TGF-beta signaling pathway
Gene Summary:	The protein encoded by this gene forms a heteromeric complex with type II TGF-beta receptors when bound to TGF-beta, transducing the TGF-beta signal from the cell surface to the cytoplasm. The encoded protein is a serine/threonine protein kinase. Mutations in this gene have been associated with Loeys-Dietz aortic aneurysm syndrome (LDAS). Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2008]

Product images:



Circular map for RG219514