

Product datasheet for **SC108520**

TGF beta Receptor I (TGFB1) (NM_004612) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TGF beta Receptor I (TGFB1) (NM_004612) Human Untagged Clone
Tag:	Tag Free
Symbol:	TGF beta Receptor I
Synonyms:	AAT5; ACVRLK4; ALK-5; ALK5; ESS1; LDS1; LDS1A; LDS2A; MSSE; SKR4; tbetaR-I; TBR-i; TBR1; TGFR-1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF sequence for NM_004612 edited
 ATGGAGGCGGCGGTCTGCTCCGCGTCCCGGCTGCTCCTCCTCGTGTGGCGGCGGG
 GCGGCGGCGGCGGCGGCGCTGCTCCCGGGGCGACGGCGTTACAGTGTCTTCTGCCACCTC
 TGTACAAAAGACAATTTACTTGTGTGACAGATGGGCTCTGCTTTGTCTCTGTACAGAG
 ACCACAGACAAAGTTATACACAACAGCATGTGTATAGCTGAAATTGACTTAATTCCTCGA
 GATAGGCCGTTTGTATGTGCACCCTCTTCAAAAAGTGGTCTGTGACTACAACATATTGC
 TGCAATCAGGACCATTGCAATAAAATAGAACTTCCAACACTGTAAAGTCATCACCTGGC
 CTTGGTCTGTGAACTGGCAGCTGTCTTGTGACCAGTGTGCTTCGTCTGCATCTCA
 CTCATGTTGATGGTCTATATCTGCCACAACCGCACTGTCAATCACCATCGAGTGCCAAAT
 GAAGAGGACCCTTATTAGATCGCCCTTTATTTAGAGGGTACTACGTTGAAAGACTTA
 ATTTATGATATGACAACGTCAGGTTCTGGCTCAGGTTTACCATTGCTTGTTCAGAGAACA
 ATTGCGAGAACTATTGTTTACAAGAAAGCATTGGCAAAGGTCGATTTGGAGAAGTTTGG
 AGAGGAAAGTGGCGGGGAGAAGAAGTTGCTGTTAAGATATTCTCCTCTAGAGAAGAAGCT
 TCGTGGTCCGTGAGGCAGAGATTTATCAAAGTAAATGTTACGTCATGAAAACATCCTG
 GGATTTATAGCAGCAGACAATAAAGACAATGGTACTTGGACTCAGCTCTGTTGGTGTCA
 GATTATCATGAGCATGGATCCCTTTTGTACTTAAACAGATACACAGTACTGTGGAA
 GGAATGATAAACTTGTCTGTCCACGGCGAGCGGTCTTGCCCATCTTCACATGGAGATT
 GTTGGTACCCAAGGAAAGCCAGCCATTGCTCATAGAGATTTGAAATCAAAGAATATCTTG
 GTAAAGAAGAATGGAAGTGTGATTGCGAGACTTAGGACTGGCAGTAAGACATGATTCA
 GCCACAGATACCATTTGATATTGCTCCAAACCACAGAGTGGGAACAAAAGGTACATGGCC
 CCTGAAGTTCTCGATGATTCCATAAATATGAAACATTTGAACTCTTCAAACGTGCTGAC
 ATCTATGCAATGGCTTAGTATTCTGGGAAATTGCTCGACGATGTTCCATTGGTGAATT
 CTGTAAGATTACCAACTGCCTTATTATGATCTTGTACCTTCTGACCCATCAGTTGAAGAA
 ATGAGAAAAGTTGTTTGTGAACAGAAGTTAAGGCCAAATATCCCAAACAGATGGCAGAGC
 TGTGAAGCCTTGAGAGTAATGGCTAAAATTATGAGAGAATGTTGGTATGCCAATGGAGCA
 GCTAGGCTTACAGCATTGCGGATTAAGAAAACATTATCGCAACTCAGTCAACAGGAAGGC
 ATCAAAATGTAA

5' Read Nucleotide Sequence: >OriGene 5' read for NM_004612 unedited
 CAGATTTTGTAAATACGACTTCACTATAGGGCGGCGGNAATTCGCACCAGGCGAGGTTT
 GCTGGGGTGAGGCAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG
 CATGGAGGCGGCGGTCGCTGCTCCGCGTCCCGGCTGCTCCTCCTCGTGTGGCGGCGGCG
 GCGGCGGCGGCGGCGGCGGCTGCTCCCGGGGCGACGGCGTTACAGTGTCTTCTGCCACCT
 CTGTACAAAAGACAATTTACTTGTGTGACAGATGGGCTCTGCTTTGTCTCTGTACAGAG
 GACCACAGACAAAGTTATACACAACAGCATGTGTATAGCTGAAATTGACTTAATTCCTCG
 AGATAGGCCGTTTGTATGTGCACCCTTCAAAAAGTGGGCTGTGACTACAACATATTG
 CTGCAATCAGGACCATTGCAATAAAATAGAACTTCCAACACTGTAAAGTCATCACCTGG
 CCTTGGTCTGTGGAAGTGGCAGCTGTCATTGCTGGACCAGTGTGCTTCGTCTGCATCTC
 ACTCATGTTGATGGTCTATATCTGCCACAACCGCACTGTCATTACCATCGAGTGCCAAA
 TGAAGAGGACCCTTCATTAGATCGCCCTTTATTTAGAGGGTACTACGTTGAAAGACTT
 AATTTATGATATGACAACGTCAGGTTCTGGCACAGGTTTACCATTGCTTGTTCAGAGAAC
 AATTGCGAGAACTATTGTGTTACAAGAAAGCATTGGCAAAGGTCGATTTGGAGAAGTTTGG
 GAGAGGAAAGTGGCGGGGAGAAGAAGTTGCTGTTAAGATATTCTCCTCTAGAGAAGACC
 TTCGTGGTTCCGTGAGGCAGAGATTNNATCAAAGTGTATGTTACGTCATGAAAACATCCT
 GNGATTATAGCAGCAGACATAAAGACATGGTACTGGNACTCGCTCTGGNTGTGGCAGATA
 TCAGAGCAGGATACCTTTTGGATACTAACAN

3' Read Nucleotide Sequence:	>OriGene 3' read for NM_004612 unedited GCCCAATAGGGGTATTGAATTCATATTACTGCTGCAAAAGAAAGCCTATCCTTCTGTTC CCTTCTCATGAGGTAGAACAATTGACCTCCCAAATAAAACCCAGGAGCAGATCTGAAGAA AAAAGGAGAGTTCAGGCAAAGCTGTAGAATTACATTTTGATGCCTTCTGTTGACTGAGT TGCGATAATGTTTTCTTAATCCGCAATGCTGTAAGCCTATCTGCTCCATTGGCATAACAA CATTCTCTCATAATTTTAGCCATTACTCTCAAGGCTTACAGCTCTGCCATCTGTTTGGG ATATTTGGCCTTAACCTTCTGTTCAAAACAACCTTTTCTCATTCTTCAACTGATGGGTCA GAAGGTACAAGATCATAATAAGGCAGTTGGTAATCTTCATGAATCCACCAATGGAACAT CGTCGAGCAATTTCCAGAATACTAAGCCATTGCATAGATGTCAGCACGTTTGAAGGAT TCAAAATGTTTCATTTTATGGAATCATCGAGAAGTTCAGGGGCCATGTACCTTTTGT CCCACTCTGTGGTTTGGAGCAATATCAATGGTATCTGTGGCTGAATCATGTCTTACTGCC AGTCCTAAGTCTGCAATACAGCAAGTTCATTCTTCTTTACCAAGATATCTTTGATTTT AAATCTCTATGAGCAATGGCTGGCTTTCCTTGGGTACCAACAATCTCCATGTGAAGATGG GCAAGACCCTCGCCGTGGACAGAGCAAGTTTTATCATTCTTCCACAGTAACTGTGTAT CTGTTTAAGTAATCAAAGGGATCCATGCTCATGATAATCTGACACCACCAGAGCTGAGT CCAATACCATTGTCTTTATTGTCTGCTGTATAAATCCCAAGATGTTTTTCATG
Restriction Sites:	NotI-NotI
ACCN:	NM_004612
Insert Size:	2000 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
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:	NM_004612.2 , NP_004603.1
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:	<p>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]</p> <p>Transcript Variant: This variant (1) uses an alternate in-frame splice site in the 5' coding region, compared to variant 3. The encoded isoform (1) is shorter than isoform 3.</p>