

Product datasheet for **SC323450**

TGF beta Receptor II (TGFB2) (NM_003242) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TGF beta Receptor II (TGFB2) (NM_003242) Human Untagged Clone
Tag:	Tag Free
Symbol:	TGF beta Receptor II
Synonyms:	AAT3; FAA3; LDS1B; LDS2; LDS2B; MFS2; RIIC; TAAD2; TBR-ij; TBRII; TGFbeta-RII; TGFR-2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF: >OriGene ORF within SC323450 sequence for NM_003242 edited (data generated by NextGen Sequencing)

```

ATGGGTCGGGGGCTGCTCAGGGGCTGTGGCCGCTGCACATCGTCCTGTGGACGCGTATC
GCCAGCACGATCCCACCGCACGTTTCCAGAAAGTTCGGTTAATAACGACATGATAGTCACTGAC
AACACGGTGCAGTCAAGTTTCCACAACGTGTAATTTTGTGATGTGAGATTTTCCACC
TGTGACAACCCAGAAATCCTGCATGAGCAACTGCAGCATCACCTCCATCTGTGAGAAGCCA
CAGGAAGTCTGTGGCTGTATGGAGAAAGATGACGAGAACAACACTAGAGACAGTT
TGCCATGACCCCAAGCTCCCCTACCATGACTTTATTCTGGAAGATGCTGCTTCTCCAAAG
TGCATTATGAAGGAAAAAAAAAGCCTGGTGGAGACTTTTTCATGTGTTCTGTAGCTCT
GATGAGTGCAATGACAACATCATCTTCTCAGAAGAATAAACACCAGCAATCCTGACTTG
TTGCTAGTCATATTTCAAGTGACAGGCATCAGCCTCCTGCCACCACTGGGAGTTGCCATA
TCTGTCATCATCTTCTACTGCTACCGGTTAACCGGCAGCAGAAGCTGAGTTCAACC
TGGGAAACCGGCAAGACGCGGAAGCTCATGGAGTTCAGCGAGCACTGTGCCATCATCCTG
GAAGATGACCGCTCTGACATCAGCTCCACGTGTGCCAACACATCAACCACAACACAGAG
CTGCTGCCATTGAGCTGGACACCTGGTGGGAAAGGTCGCTTGTGAGGTCTATAAG
GCCAAGCTGAAGCAGAACAACACTTACAGAGCAGTTTGAAGACAGTGGCAGTCATGATCTTCCC
TATGAGGAGTATGCCTCTTGAAGACAGAGAAGGACATCTTCTCAGACATCAATCTGAAG
CATGAGAACAATACTCCAGTTCTGACGGCTGAGGAGCGGAAGACGGAGTTGGGAAACAA
TACTGGCTGATCACCGCTTCCACGCCAAGGGCAACCTACAGGAGTACCTGACCGCGCAT
GTCATCAGCTGGGAGGACCTGCGCAAGCTGGGCAGCTCCCTCGCCCGGGGATTGCTCAC
CTCCACAGTATCACACTCCATGTGGGAGGCCAAGATGCCCATCGTGCACAGGGACCTC
AAGAGCTCCAATATCCTCGTGAAGAACGACCTAACCTGCTGCCTGTGACTTTGGGCTT
TCCTGCGTCTGGACCTACTCTGTCTGTGGATGACCTGGCTAACAGTGGCAGGTGGGA
ACTGCAAGATACATGGCTCCAGAAGTCCATAAGATCCAGGATGAATTTGGAGAATGTTGAG
TCCTTCAAGCAGACCGATGTCTACTCCATGGCTCTGGTGTCTGGGAAATGACATCTCGC
TGTAATGCAGTGGGAGAAGTAAAAGATTATGAGCCTCCATTTGGTTCCAAGGTGCGGGAG
CACCCCTGTGTCGAAAGCATGAAGGACAACGTGTTGAGAGATCGAGGGCGACCAGAAATT
CCCAGTCTTGGCTCAACCACAGGGCATCCAGATGGTGTGTGAGACGTTGACTGAGTGC
TGGGACCACGACCCAGAGGCCCTCTCACAGCCAGTGTGTGGCAGAACGCTTCACTGAG
CTGGAGCATCTGGACAGGCTCTCGGGGAGGAGCTGCTCGGAGGAGAAGATTCTGAAGAC
GGCTCCCTAAACTACCAATAG
    
```

Clone variation with respect to NM_003242.5
830 a=>t

5' Read Nucleotide Sequence: >OriGene 5' read for mutant NM_003242 unedited

```

CCCCCGTTGAGCAATGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAA
CCGTGAGAAATTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACAGGGCCTCCAGGCCCC
TCCTGGCTGGCGAGCGGGCGCCACATCTGGCCCGCACATCTGCGCTGCCGCCCCGGCGGGGTCCGGAG
AGGGCGCGGGCGGGAGGCGCAGCCAGGGGTCCGGGAAGGCGCCGTCCGCTGCGCTGGGGCTCGGTCTAT
GACGAGCAGCGGGTCTGCCATGGTCCGGGGGCTGCTCAGGGGGCTGGTCCCCCTGGCACATTCGGT
CCTGGTGAACCCTTATCGCCCGGCACGATCCCCACCGGCACGTTTCAAAGTTCGGTTATTAACAACATT
GATATTCCTGACAACACCGGGGCATTCAAGTTTCCCCAACGGTGGTAATTTTGGGGATGGGAAATT
TTCCCCCTGGGAAAACCAAAATCCGGGCTGAGACAAAATGGCGCTTCCCCTCCCTGGTAGAAAACC
CCCCGAAATTTCTGGTGGGGGGGTTGGGAAAAAAAAAGGGGCAGAAAACCAACCCTGGAACGGTTT
TGCGTGGAGACAAAAGTTTCTTATAAATTGCTTTTTTTTCGGGAGAAATACGGGGTTTTCCAGGGGCTT
TTTTTTGGGGGAGAAAAGCCCCGGGGGAAAATTTTTCCCATTTGGTTCCCTGGCCCCTAGGATAGTGC
GAAGGCCCTTCTTTTTCTAAGAGATTATACCCCCCAGTGGTTGGGGGTGCTATATTTT
AGAGAGAGGGGGATCCCCCTCGCGCCCCATGTGGGGTTGCCAAATAGTGAGCACATACTCTCTCGG
ATAGCCGTATACACCGGCGCAAGCAGCGAGTTACACTCTGGAGACCGCAGAACAGCGAGGCCATGTGA
GTTATCAAGCCAGCGTCTACTCTGTCTAGAG
    
```

Kinase Domain Sequence:	>SC323450 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation CKSCTKCCCATTTGASTGGAACCCCTGGTGGGGAAGGTCGCTTTGCTGAGGTCTATAAGGCCAAGCTGAAGC AGAACACTTCAGAGCAGTTTGAGACAGTGGCAGTCATGATCTTTCCCTATGAGGAGTATGCCTCTTGAA GACAGAGAAGGACATCTTCTCAGACATCAATCTGAAGCATGAGAACATACTCCAGTTCCTGACGGCTGAG GAGCGGAAGACGGAGTTGGGAAACAATACTGGCTGATCACCGCC
Restriction Sites:	Please inquire
ACCN:	NM_003242
Insert Size:	4350 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell, 2008 May p536-548.
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_003242.4 , NP_003233.4
RefSeq Size:	4639 bp
RefSeq ORF:	1704 bp
Locus ID:	7048
UniProt ID:	P37173
Cytogenetics:	3p24.1
Domains:	pkinase, TyrKc, S_TKc
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 is a transmembrane protein that has a protein kinase domain, forms a heterodimeric complex with TGF-beta receptor type-1, and binds TGF-beta. This receptor/ligand complex phosphorylates proteins, which then enter the nucleus and regulate the transcription of genes related to cell proliferation, cell cycle arrest, wound healing, immunosuppression, and tumorigenesis. Mutations in this gene have been associated with Marfan Syndrome, Loeys-Deitz Aortic Aneurysm Syndrome, and the development of various types of tumors. Alternatively spliced transcript variants encoding different isoforms have been characterized. [provided by RefSeq, Aug 2017]

Transcript Variant: This variant (2) lacks an alternate in-frame exon in the coding region compared to variant 1. The resulting protein (isoform B) is shorter than isoform A.