

Product datasheet for **SC325930**

TGF beta 2 (TGFB2) (NM_001135599) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TGF beta 2 (TGFB2) (NM_001135599) Human Untagged Clone
Tag:	Tag Free
Symbol:	TGF beta 2
Synonyms:	G-TSF; LDS4; TGF-beta2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_001135599 edited
GCCCCGGGACCTTTTCATCTCTCCCTTTTGGCCGGAGGAGCCGAGTTCAGATCCGCCAC
TCCGCACCCGAGACTGACACACTGAACCTCCCTCTTAAATTTATTCTACTTA
ATAGCCACTCGTCTCTTTTTTTTCCCATCTCATTGCTCCAAGAATTTTTTCTTAC
TCGCCAAAGTCAGGGTCCCTCTGCCCGTCCCGTATTAATATTTCCACTTTTGAACTAC
TGGCCTTTCTTTTTAAAGGAATCAAGCAGGATACGTTTTCTGTTGGCATTGACTAG
ATTGTTTGCAAAAGTTTCGCATCAAAAACAACAACAACAAAAACCAACAACCTCCTT
GATCTATACTTTGAGAATTGTTGATTTCTTTTTTTTATTCTGACTTTTAAAAACAACCTT
TTTTTCCACTTTTTAAAAAATGCACTACTGTGTGCTGAGCGCTTTTCTGATCCTGCATC
TGGTCACGGTCGCGCTCAGCCTGTCTACCTGCAGCACACTCGATATGGACCAGTTCATGC
GCAAGAGGATCGAGGCGATCCGCGGGCAGATCCTGAGCAAGCTGAAGCTCACCAGTCCCC
CAGAAGACTATCCTGAGCCCAGGAAGTCCCCCGGAGGTGATTTCCATCTACAACAGCA
CCAGGGACTTGCTCCAGGAGAAGGCGAGCCGGAGGGCGGCCCTGCGAGCGCGAGAGGA
GCGACGAAGAGTACTACGCCAAGGAGGTTACAAAATAGACATGCCGCCCTTCTCCCT
CCGAAACTGTCTGCCAGTTGTTACAACACCCTCTGGCTCAGTGGGCAGCTTGTGCTCCA
GACAGTCCCAGGTGCTCTGTGGGTACCTTGATGCCATCCCGCCACTTTCTACAGACCCT
ACTTCAGAATTGTTTCGATTTGACGTCTCAGCAATGGAGAAGAATGCTTCCAATTTGGTGA
AAGCAGAGTTCAGAGTCTTTTCGTTTGCAGAACCCAAAAGCCAGAGTGCCTGAACAACGGA
TTGAGCTATATCAGATTCTCAAGTCCAAAGATTTAACATCTCCAACCCAGCGCTACATCG
ACAGCAAAGTTGTGAAAACAAGAGCAGAAGGCGAATGGCTCTCCTTCGATGTAACGTGATG
CTGTTTCATGAATGGCTTACCATAAAGACAGGAACCTGGGATTTAAAATAAGCTTACACT
GTCCCTGCTGCACTTTTGTACCATCTAATAATTACATCATCCCAAATAAAAGTGAAGAAC
TAGAAGCAAGATTTGCAGGTATTGATGGCACCTCCACATATACCAGTGGTGATCAGAAAA
CTATAAAGTCCACTAGGAAAAAAAACAGTGGGAAGACCCACATCTCCTGCTAATGTTAT
TGCCCTCTACAGACTTGAGTACAACAGACCAACCGGCGGAAGAAGCGTGTGGATG
CGGCCTATTGCTTTAGAAATGTGCAGGATAATTGCTGCCTACGTCCACTTTACATTGATT
TCAAGAGGGATCTAGGGTGGAAATGGATACACGAACCCAAAGGTTACAATGCCAACTTCT



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GTGCTGGAGCATGCCCGTATTTATGGAGTTCAGACACTCAGCACAGCAGGGTCTGAGCT
TATATAATACCATAAATCCAGAAGCATCTGCTTCTCCTTGCTGCGTGCCCAAGATTTAG
AACCTCTAACCTTCTCTACTACATTGGCAAAACACCCAAGATTGAACAGCTTTCTAATA
TGATTGTAAGTCTTGCAAAATGCAGCTAAAATCTTGGAAAAGTGGCAAGACCAAAATGA
CAATGATGATGATAATGATGATGACGACGACAACGATGATGCTTGTAAACAAGAAAACATA
AGAGAGCCTTGGTTCATCAGTGTAAAAATTTTTGAAAAGGCGGTACTAGTTCAGACAC
TTTGAAGTTTTGTCTGTTTTGTTAAAAGTGGCATCTGACACAAAAAAGTTGAAGGCC
TTATTCTACATTTACCTACTTTGTAAGTGAGAGAGACAAGAAGCAAATTTTTTTAAAG
AAAAAATAAACACTGGAAGAATTTATTAGTGTTAATTATGTGAACAACGACAACAACAA
CAACAACAACAACAGGAAAATCCCATTAAGTGGAGTTGCTGTACGTACCGTTTCCATCC
CGCGCCTCACTTGATTTTTCTGTATTGCTATGCAATAGGCACCCTTCCATTTCTACTCT
TAGAGTTAACAGTGAGTATTTATTGTGTGTTACTATATAATGAACGTTTCATTGCCCTT
GGAAAATAAACAGGTGTATAAAGTGGAGACCAATACTTTGCCAGAACTCATGGATGG
CTTAAGGAACTTGAACCTCAAACGAGCCAGAAAAAAGAGGTCATATTAATGGGATGAAAA
CCCAAGTGAGTTATTATGACCGAGAAAGTCTGCATTAAGATAAAGACCCTGAAAACAC
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GAAAACACATCTGCAGATCTCTTTGCAAACTATTAATCAAAACATTAACACTTTATG
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GATTGACTTAAATTTGGGCTCTTTTTAATGATCACTCACAAATGTATGTTTTCTTTAGT
GGCCAGTACTTTTGAGTAAAGCCCTATAGTTTGACTTGCACTACAAATGCATTTTTTTTT
TTAATAACATTTGCCCTACTTGTGCTTTGTGTTCTTTCATTATTATGACATAAGCTACC
TGGGTCCACTTGTCTTTCTTTTTTTGTTTCCACAGAAAAGATGGGTTCCAGTTCAGTGG
TCTTCATCTTCAAGCATCATTACTAACCAAGTCAAGCTTAACAAATTTTTATGTTAGG
AAAAGGAGGAATGTTATAGATACATAGAAAATTGAAGTAAATGTTTTCTTTTAGCAAG
GATTTAGGGTCTAACTAAAACAGAACTTTTATTGAGTTAAGAAAAGTTTCTCTACCT
TGGTTAATCAATTTTTGTAAAATCCTATTGTTATTACAAAGAGGACACTTCATAGGA
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TAGTCGATTTTTCAAAGGGGAAAAAAGTCCAGGTCAGCATAAGTCATTTTGTGTATTT
ACTGAAGTTATAAGGTTTTTATAAATGTTCTTTGAAGGGGAAAAGGCACAAGCCAATTTT
TCCTATGATCAAAAAATCTTTCTTCTCTGAGTGAGAGTTATCTATATCTGAGGCTAA
AGTTTACCTTGCTTAAATAAATAATTTGCCACATCATTGCAGAAGAGGTATCCTCATGCT
GGGGTAAATAGAATATGTCAGTTATCACTTGTGCGTTATTTAGCTTTAAAAATAAAAT
AATAGGCAAAGCAATGGAATATTTGCAGTTTCACTAAAGAGCAGCATAAGGAGGGCGGA
ATCCAAAGTGAAGTTGTTGATGATGGTCTACTTCTTTTTGGAATTTCTGACCATTAAT
TAAAGAATTGGATTTGCAAGTTTGAAACTGAAAAGCAAGAGATGGGATGCCATAATAG
TAAACAGCCCTTGTTGGATGTAACCCAATCCAGATTTGAGTGTGTGTTGATTATTTT
TTTGTCTTCCACTTTTCTATTATGTGTAATCACTTTTATTTCTGCAGACATTTTCTCT
CAGATAGGATGACATTTTGTGTTGATTATTTGTCTTCTCATGAATGCACTGATAAT
ATTTTAAATGCTCTATTTAAGATCTCTGAACTGTTTTTTTTTTTTTAAATTTGGGGG
TTCTGTAAGTCTTTATTTCCATAAGTAAATATTGCCATGGGAGGGGGTGGAGGTGGC
AAGGAAGGGTGAAGTGTAGTATGCAAGTGGCAGCAATTTTTTTGTGTTAATCAGCA
GTACAATTTGATCGTTGGCATGGTTAAAAATGGAATATAAGATTAGCTGTTTTGTATTT
TGATGACCAATTACGCTGTATTTAACACGATGTATGTCTGTTTTTGTGGTGCTCTAGTG
GTAATAAATTTTCGATGATAAAAAAAAAAAAAAAAAAAAAA

Restriction Sites:

Please inquire

ACCN:

NM_001135599

Insert Size:	4400 bp
OTI Disclaimer:	<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 custsupport@origene.com 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. More info</p>
OTI Annotation:	The ORF of this clone has been fully sequenced and found to be a perfect match to NM_001135599.1
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_001135599.1 , NP_001129071.1
RefSeq Size:	5251 bp
RefSeq ORF:	1329 bp
Locus ID:	7042
UniProt ID:	P61812
Cytogenetics:	1q41
Protein Families:	Druggable Genome, Secreted Protein, Transmembrane
Protein Pathways:	Cell cycle, Chronic myeloid leukemia, Colorectal cancer, Cytokine-cytokine receptor interaction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM), MAPK signaling pathway, Pancreatic cancer, Pathways in cancer, Renal cell carcinoma, TGF-beta signaling pathway

Gene Summary:

This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate a latency-associated peptide (LAP) and a mature peptide, and is found in either a latent form composed of a mature peptide homodimer, a LAP homodimer, and a latent TGF-beta binding protein, or in an active form consisting solely of the mature peptide homodimer. The mature peptide may also form heterodimers with other TGF-beta family members. Disruption of the TGF-beta/SMAD pathway has been implicated in a variety of human cancers. A chromosomal translocation that includes this gene is associated with Peters' anomaly, a congenital defect of the anterior chamber of the eye. Mutations in this gene may be associated with Loeys-Dietz syndrome. This gene encodes multiple isoforms that may undergo similar proteolytic processing. [provided by RefSeq, Aug 2016]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longer isoform (1). This isoform (1) may undergo proteolytic processing similar to isoform 2.

Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.