

Product datasheet for **SC119746**

TGF beta 1 (TGFB1) (NM_000660) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TGF beta 1 (TGFB1) (NM_000660) Human Untagged Clone
Tag:	Tag Free
Symbol:	TGFB1
Synonyms:	CED; DPD1; IBDIMDE; LAP; TGF-beta1; TGFB; TGFbeta
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None



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Fully Sequenced ORF: >OriGene sequence for NM_000660 edited
 GAATTCGGCACCAGGCGTCCCTCAGGCGCCCCATTCCGGACCAGCCCTCGGGAGTCGCC
 GACCCGGCCTCCCGCAAAGACTTTTCCCCAGACCTCGGGCGCACCCCTGCACGCCGCT
 TCATCCCCGGCCTGTCTCCTGAGCCCCCGCATCCTAGACCTTTCTCCTCCAGGAGAC
 GGATCTCTCTCCGACCTGCCACAGATCCCCTATTCAAGACCACCCACCTTCTGGTACCAG
 ATCGCGCCCATCTAGGTTATTTCCGTGGGATACTGAGACACCCCGGTCCAAGCCTCCCC
 TCCACCCTGCGCCCTTCTCCCTGAGGACCTCAGCTTTCCCTCGAGGCCCTCTACCTTT
 TGCCGGGAGACCCAGCCCTGCAGGGCGGGGCTCCCCACCACACCAGCCCTGTTCCG
 CGCTCTCGGCAGTGCCGGGGGGCCGCCCTCCCCATGCCGCCCTCCGGGCTGCGGCTGC
 TGCCGCTGCTGCTACCGCTGCTGTGGTACTGGTGTGACGCCTGGCCGGCCGGCCGCGG
 GACTATCCACCTGCAAGACTATCGACATGGAGTGGTGAAGCGGAAGCGCATCGAGGCCA
 TCCCGGGCAGATCCTGTCCAAGCTGCGGCTCGCCAGCCCCCGAGCCAGGGGAGGTGC
 CGCCCGCCCGCTGCCGAGGCCGTGCTGCCCTGTACAACAGCACCCGCGACCCGGTGG
 CCGGGGAGAGTGCAGAACCGGAGCCGAGCCTGAGGCCGACTACTACGCCAAGGAGGTCA
 CCCGCGTGCTAATGGTGGAAACCCACAACGAAATCTATGACAAGTTCAAGCAGAGTACAC
 ACAGCATATATATGTTCTTCAACACATCAGAGCTCCGAGAAGCGGTACCTGAACCCGTGT
 TGCTCTCCCGGGCAGAGCTGCGTCTGCTGAGGCTCAAGTAAAAGTGGAGCAGCAGCTGG
 AGCTGTACCAGAAATACAGCAACAATTCCTGGCGATACCTCAGCAACCGGCTGCTGGCAC
 CCAGCGACTCGCCAGAGTGGTTATCTTTTGATGTACCCGGAGTTGTGCGGAGTGGTTGA
 GCCGTGGAGGGGAAATTGAGGGCTTTCGCCTTAGCGCCACTGCTCCTGTGACAGCAGGG
 ATAACACACTGCAAGTGGACATCAACGGGTTACTACCGGCCCGCGAGGTGACCTGGCCA
 CCATTCATGGCATGAACCGGCCCTTCTGCTTCTCATGGCCACCCCGCTGGAGAGGGCCC
 AGCATGTGCAAAGCTCCCGGCACCGCCGAGCCCTGGACACCAACTATTGCTTCAGTCCA
 CGGAGAAGAACTGCTGCGTGCGGAGCTGTACATTGACTTCCGCAAGGACCTCGGCTGGA
 AGTGGATCCACGAGCCCAAGGGTACCATGCCAATTCTGCCTCGGGCCCTGCCCTACA
 TTTGGAGCTGGACACGCAGTACAGCAAGGTCCTGGCCCTGTACAACCAGCATAACCCGG
 GCGCCTCGGGCGCCCGTGTGCGTGCCGACGGCGCTGGAGCCGCTGCCATCGTGTACT
 ACGTGGGCGCAAGCCCAAGGTGGAGCAGCTGTCCAACATGATCGTGGCTCCTGCAAGT
 GCAGCTGAGGTCCCGCCCGCCCGCCCGCCCGCCCGCCCGCCCGCCCGCCCGCCCG
 CCCCCGCTGCCTTGCCATGGGGGCTGTATTTAAGGACACCCGTGCCCAAGCCACCTG
 GGGCCCCATTAAGATGGAGAGAGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
 AAAAAAAAAACTCGAC

5' Read Nucleotide Sequence: >OriGene 5' read for NM_000660 unedited
 TAAGATTTGTAATACGACTCACTATAGGGCGGCCGNAATTCGCACCAGGCGTCCCTCA
 GCGCCCCCATTCCGACACGCCCTCGGGAGTCGCCGACCCGGCCTCCCGCAAAGACTTT
 TCCCCAGACCTCGGGCGCACCCCTGCACGCCCTTATCCCCGGCCTGTCTCTGAGC
 CCCCAGCATCCTAGACCCTTTCTCCTCCAGGAGACGGATCTCTCTCCGACCTGCCACAG
 ATCCCCCTATTCAAGACCACCCACCTTCTGGTACCAGATCGCGCCCATCTAGGTTATTTCC
 GTGGGATACTGAGACACCCCGGTCCAAGCCTCCCTCCACCCTGCGCCCTTCTCCCTG
 AGGACCTCAGCTTTCCTCGAGGCCCTCCTACCTTTTGCCGGGAGACCCAGCCCTGC
 AGGGGCGGGGCTCCCCACCACACCAGCCCTGTTGCGCTCTCGGAGTCCGGGGGGCG
 CCGCCTCCCCATGCCGCCCTCCGGGCTGCGGCTGCTGCCGCTGCTACCGCTGCTGT
 GGCTACTGGTGTGACGCCTGGCCGGCCGGCCGGGACTATCCACCTGCAAGACTATCG
 ACATGGAGCTGGTGAAGCGGAAGCGCATCGAGGCCATCCGCGCCAGATCCTGTCCAAGC
 TGCGGCTCGCCAGCCCCGAGCCAGGGGGAGGTGCCGCCCGCCCGCTGCCGAGGCC
 GTGCTCGCCCTGTACAACAGCACCCGCGACCGGGTGGCCGGNGAGAGTGCANAACCGGAG
 CCCGAGCCCTGAGCCGACTACTACGCCAAGGNAGTCACCCGCGTGCTAATGGGTGAAAC
 CCACANNGAATCTATGACAGTCTCAGCAGAGTACACAGCATATTATATGTTCTTCA
 CATCAGAGCTCCGAGAAGCGGACCTGAACCCCGTGTGCTCTCCCGCAAAGCTGCGTCTG
 CTGAGGCTCAGT

3' Read Nucleotide Sequence:	>OriGene 3' read for NM_000660 unedited AACC GCGAAACCCACACTTTTNNNNNGTTTACTTGAACCCGGCCGAATCTANATCGAG TTTCTCTCTCCATCTTAA AGGGGGCCCCAGGGGGGCTTGGGGCACGGGTGTCCTTAAACACCCCCATGGGCAAGGC ACCGGGGGCGGGGCGGGTGGGGCCGGCCCTGCCGGGGCGGGGCGGGGCGGGGCGGAACC TCATTTGCACTTG CAGGAGCCACAATCATGTTGGACAGCTGCTCCACCTTGGGCTTGGC GCCACGTATAACACAATGGGCAGGGTTCCAGCGCCTGGGGAACCCAAAACGGCCCCC CGAGGCGCCCGGTTATGCTGGTTGTACAGGGCCAGAACCTTGCTGTACTGCGTGTCCAG CCTCCAAATGTAGGGGCAGGGCCCAAGGCAAAAGTTGGCATGGAACCCCTTGGGCTCGGG GATCCACTTCCAGCCGAGGTCCTTGC GGAAGTAAATGTACAGCTGCCAACC CAACAGTT TTTTTCCGTGGAGCTAGAACAATATTTGGTGTCCAGGGCTCGGCGGTGCCGAAGCTTTG CAAATGCTGGGCCCTCTCCAGCGGGTGGCCATGAAAAACAAGAAAAGGCCGTTATTG CCATGAATGTTGGCCAGGTCACCTCGGCGCCGGTAGTAAACCTTTGATGTCCACTTGC AGGGTGTATCCCTGCTGCAAAGAAACAGGGGCCCTTAAGGCAAAGCCCTCAATTTCCCT CCAGGGTAACCCATTGCGAAAATTTTCGGGAAAATAAAAAAACCCCTTTGGCAATCCTTG GGGTCCACAAACCGGTTGTGAGGTATCCACAGAAATTTTTTTTTTTTTTTGGACAGCTCCC GCGGTCCCTTTAACTGGAACCCAAAAACCCACTTTTGCCGAAAAAACACGGTTTT
Restriction Sites:	NotI-NotI
ACCN:	NM_000660
Insert Size:	1870 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:	TRueClone
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_000660.3 , NP_000651.3

RefSeq Size:	2346 bp
RefSeq ORF:	1173 bp
Locus ID:	7040
UniProt ID:	P01137
Cytogenetics:	19q13.2
Domains:	TGFb_propeptide, TGF-beta
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein, Transcription Factors
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:	<p>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 TGFB family members. This encoded protein regulates cell proliferation, differentiation and growth, and can modulate expression and activation of other growth factors including interferon gamma and tumor necrosis factor alpha. This gene is frequently upregulated in tumor cells, and mutations in this gene result in Camurati-Engelmann disease. [provided by RefSeq, Aug 2016]</p>