

## Product datasheet for **SC118071**

### TGF beta 3 (TGFB3) (NM\_003239) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TGF beta 3 (TGFB3) (NM_003239) Human Untagged Clone
Tag:	Tag Free
Symbol:	TGF beta 3
Synonyms:	ARVD; ARVD1; LDS5; RNHF; TGF-beta3
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

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>OriGene sequence for NM_003239 edited
GAATTCGGCACGAGGGCTTCTTCGTCCTCAGGGTTGCCAGCGCTTCTGGAAGTCTGAA
GCTCTCGCAGTGCAGTGCAGTTCATGCACCTTCTTGCCAAGCCTCAGTCTTTGGGATCTGG
GGAGGCCCGCTGGTTTTCTCCCTCCTTCTGCACGTCTGCTGGGGTCTTCTCCTCCTCAG
GCCTTGCCGTCCCCTGGCCTCTTCCAGCTCACACATGAAGATGCACTTGCAAAGGG
CCTCTGGTGGTCTGGCCCTGTGAACTTTGCCACGGTCAGCCTCTCTGTCCACTTGCA
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TGAGCAAAGCTCAGGCTCACAGCCCCCTGAGCCAAACGGTGATGACCCAGTCCCCTATC
AGGTCCTGGCCCTTTACAACAGCACCCGGGAGCTGCTGGAGGAGATGCATGGGGAGAGGG
AGGAAGGCTGCACCCAGGAAAACACCGAGTCGGAATACTATGCCAAAGAAATCCATAAAT
TCGACATGATCCAGGGGCTGGCGGAGCACAACGAACTGGCTGTCTGCCTAAAGGAATTA
CCTCCAAGTTTTCCGCTTCAATGTGTCCTCAGTGGAGAAAAATAGAACCAACCTATTCC
GAGCAGAATTCGGGTCTTGGGGTGCCCAACCCAGCTTAAGCGGAATGAGCAGAGGA
TCGAGCTCTTCCAGATCCTTCCGCCAGATGAGCACATTGCCAAACAGCGCTATATCGGTG
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TGCGTGAGTGGCTGTTGAGAAGAGAGTCCAACCTTAGGTCTAGAAATCAGCATTCACTGTC
CATGTACACCTTTCAGCCCAATGGAGATATCCTGGAAAACATTCACGAGGTGATGGAAA
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AGAAGCAGAAGGATCACCAACCCCTCATCTAATCCTCATGATGATTCACCCACACCGGC
TCGACAACCCGGGCCAGGGGGTCCAGAGGAAGAAGCGGGCTTTGGACCAACTTACTGCT
TCCGCAACTTGGAGGAGAACTGCTGTGTGCGCCCCCTCTACATTGACTTCCGACAGGATC
TGGGCTGGAAGTGGTCCATGAACCTAAGGGCTACTATGCCAACTTCTGCTCAGGCCCTT
GCCATACCTCCGAGTGCAGACACAACCCACAGCAGGTGCTGGGACTGTACAACACTC
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TCTGTACTATGTTGGGAGGACCCCAAAGTGGAGCAGCTCTCCAACATGGTGGTGAAGT
CTTGTAATGTAGCTGAGACCCACGTGCGACAGAGAGAGGGGAGAGAGAACCACCACTG
CCTGACTGCCCGCTCCTCGGAAACACACAAGCAACAACCTCACTGAGAGGCCTGGAGC
CCACAACCTTCGGCTCCGGGCAATGGCTGAGATGGAGGTTTTCTTTTGGACATTTCTT
TCTTGCTGGCTCTGAGAATCACGGTGGTAAAGAAAGTGTGGGTTGGTTAGAGGAAGGCT
GAACTCTTCAGAACACACAGACTTCTGTGACGCAGACAGAGGGGATGGGGATAGAGGAA
AGGGATGGTAAGTTGAGATGTTGTGTGGCAATGGGATTTGGGCTACCCTAAAGGGAGAAG
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ATTTGCTCATTGCTGTACCACATCTGCTCTAGGGAATCTGGATTATGTTATACAAGGCAA
GCATTTTTTTTTTTTTTTTTAAAGACAGGTTACGAAGACAAAGTCCCAGAATTGTATCTCA
TACTGTCTGGGATTAAGGGCAAATCTATTACTTTTGCAAAGTGTCTCTACATCAATTA
CATCGTGGGCTACTACAGGGAGAAAAATCCAGGTGCATGCAGTTCCTGGCCCATCACTGTA
TTGGGCCTTTTGGATATGCTGAACGCAGAAAGAAAGGGTGGAAATCAACCCCTCTCCTGTCT
GCCCTTCGGGTCCTCCTCACCTCTCCCTCGATCATATTTCCCTTGGACACTTGTT
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CAGGTGCTACAACATGTGAGGCATTCCGGGAAGCTGCACATGTGCCACACAGTGACTTGG
CCCCAGACGCATAGACTGAGGTATAAAGACAAGTATGAATATTACTCTCAAAATCTTTGT
ATAAATAAATATTTTTGGGGCATCCTGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAACTCGAC
```

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_003239 unedited  
 GTGTACATTTGTATACGACTCACTATAGGCGGCCGGAATCGGCACGAGGGCTTCTTCGT  
 CCTCGGGTTGCCAGCGCTTCTGGAAGTCTGAAGCTCTCGCAGTGCAAGTTCATGC  
 ACCTTCTTGCCAAAGCCTCAGTCTTTGGGATCTGGGGAGGCCGCTGGTTTTCTCCCTCC  
 TTCTGCACGTCTGCTGGGGTCTCTTCTCTCCAGGCCTTGCCGTCCCCCTGGCCTCTCT  
 CCCAGTCAACATGAAGATGCACTTGCAAAGGGCTCTGGTGGTCTGGCCCTGCTGAAC  
 TTTGCCACGGTCAGCCTCTCTGTCCACTTGCAACACCTTGACTTCGGCCACATCAAG  
 AAGAAGAGGGTGAAGCCATTAGGGGACAGATCTTGAGCAAGCTCAGGCTCACCAGCCCC  
 CCTGAGCCAACGGTGATACCCACGTCCCTATCAGGTCCTGGCCCTTACAACAGCACC  
 CGGGAGCTGCTGGAGGAGATGCATGGGGAGAGGGAGGAAGGCTGCACCCAGGAAAACACC  
 GAGTCGGAATACTATGCCAAAGAAATCCATAAATTCGACATGATCCAGGGGCTGGCGGAG  
 CACAACGAACTGGCTGTCTGTCTAAAGGAATTACCTCCAAGTTTTCCGCTTCAATGTG  
 TCCTCAGTGGAGAAAAAAGAACCAACCTATTCCGAGCAGAATCCGGGTCTTGGGGTG  
 CCCAACCCAGCTCTAAGCGGAATGAGCAGAAGATCGAGCTCTCCGATCCCTTCGCCAG  
 ATGAGCACATTGCCAAACAGCGTATATCGGTGGCCAGAATCTGCCACCCGGGACTGC  
 CGAGTGGCTGTCTTTTGTAGTCACTGACACTGTGCGTGAGTGCCTGTTGAAAAAAGATC  
 CACTTAAGTCTAGAAATCANCT

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_003239 unedited  
 GGGGTGGTTTTTCTTTTACCAACCCAACCCACACCTTTTTGGCCCAAATATATTTTT  
 ATACAAATATTTGTGCGTAATATTCATACTTGTCTTTATACCTCAGTCTATGCGTCTGG  
 GCCAAGTCACTGTGTGGCACATGTGCAGCTTCCCGATGCCTCCATGTTGTAGCACCTGC  
 TTCCAGGAACACCAAAATGAACACAGGGTCTTGAGGGGAAGTGGGGGAAGAACCATAA  
 TGCCCAAAGGCTGCATGGAACCAATCCAGAAATGTGCATCCTGACCTGGAAGGCGTCT  
 AACCAAGTGTCCAAGGGGAAATATGATCGAGGGAGAGGTGAGAGGAGGGACCCATAGGGC  
 AGACAGGAGAGGGTTGATTTCCACCTTTCTTCTGCGTTCAGCATATCCAAAAGGCCAA  
 TACAGTTGATGGCCAGGAACCTGCATGACCTGGATTTTCTCCCTGTAGTGACCCACGATG  
 TTAATTGATGTAGAGGACAGTTTGCAAAAGTAATAGATTTGCCCTTTATCCACACAGTA  
 TGAGATAACAATTCTGGGACTTTGTCTTTCGTAACCTGTCTTTAAAAAAAAAAAAAAAAATG  
 CTTGCCCTTGATAACATAATCCAGATTCCCTAGAGCCAGATGTGGTACAGCAATGAGCA  
 AATCCAACCTCAGATCTGAAGTGTCTTCCACTCTGGGCCCTGACCAAACCATTTTCTGT  
 CCTTCTTTTTCTTTAAGGTAGCCCAAATCCATTGCCACACAACATCTTAACCTAACC  
 ATCCTTTTCTTTATCCCATTCCTCTGTCTGCGTCACAAAAAGACTGTGTGGTTCTG  
 AAGAGTTCACACTTCTCTTAACCAACCCCAATTTTTTTTTTACCACCGTGATTTTTATA  
 GCCTGTAGAAGAAAAATGTTCCAAGAG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_003239

**Insert Size:**

2640 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).

**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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_003239.1</a> , <a href="#">NP_003230.1</a>
<b>RefSeq Size:</b>	2574 bp
<b>RefSeq ORF:</b>	1239 bp
<b>Locus ID:</b>	7043
<b>UniProt ID:</b>	<a href="#">P10600</a>
<b>Cytogenetics:</b>	14q24.3
<b>Domains:</b>	TGFb_propeptide, TGF-beta
<b>Protein Families:</b>	Druggable Genome, Secreted Protein, Transmembrane
<b>Protein Pathways:</b>	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
<b>Gene Summary:</b>	<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 TGF-beta family members. This protein is involved in embryogenesis and cell differentiation, and may play a role in wound healing. Mutations in this gene are a cause of aortic aneurysms and dissections, as well as familial arrhythmogenic right ventricular dysplasia 1. [provided by RefSeq, Aug 2016]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longer isoform (1). Both variants 1 and 2 encode the same isoform (1).</p>