

Product datasheet for **RC200973**

TGF beta 1 (TGFB1) (NM_000660) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TGF beta 1 (TGFB1) (NM_000660) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TGFB1
Synonyms:	CED; DPD1; IBDIMDE; LAP; TGF-beta1; TGFB; TGFbeta
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC200973 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCGCCCTCCGGGCTGCGGCTGCTGCTGCTGCTACCGCTGCTGTGGCTACTGGTGTGACGCCTG
GCCGCCCGCCGGGACTATCCACCTGCAAGACTATCGACATGGAGCTGGTGAAGCGGAAGCGCATCGA
GGCCATCCGCGGCCAGATCCTGTCCAAGCTGCGGCTCGCCAGCCCCCGAGCCAGGGGAGGTGCCGCC
GGCCCGCTGCCGAGGCCGTGCTCGCCCTGTACAACAGCACCCCGGACCCGGTGGCCGGGAGAGTGCAG
AACCGGAGCCCGAGCCTGAGGCCGACTACTACGCCAAGGAGGTCACCCCGGTGCTAATGGTGAAACCCA
CAACGAAATCTATGACAAGTTCAAGCAGAGTACACACAGCATATATATGTTCTTCAACACATCAGAGCTC
CGAGAAGCGGTACCTGAACCCGTGTTGCTCTCCCGGCAGAGCTGCGTCTGCTGAGGCTCAAGTAAAAG
TGGAGCAGCACGTGGAGCTGTACCAGAAATACAGCAACAATTCTGGCGATACCTCAGCAACCCGGTGT
GGCACCAGCGACTCGCCAGAGTGGTTATCTTTGATGTCACCGGAGTTGTGCGGCAGTGGTTGAGCCGT
GGAGGGGAAATTGAGGGCTTTCGCCTTAGCGCCACTGCTCCTGTGACAGCAGGGATAACACACTGCAAG
TGGACATCAACGGGTTCACTACCGGCCGCGAGGTGACCTGGCCACCATTCAATGGCATGAACCCGGCCTT
CCTGCTTCTCATGGCCACCCCGCTGGAGAGGGCCAGCATCTGCAAAGCTCCCGGACCCGAGCCCTG
GACACCAACTATTGCTTCACTCCAGGAGAAAGAACTGCTGCGTGCGGCAGCTGTACATTGACTTCCGCA
AGGACCTCGGCTGGAAGTGGATCCACGAGCCCAAGGGCTACCATGCCAATTCTGCCTCGGGCCCTGCC
CTACATTTGGAGCCTGGACACGCAGTACAGCAAGGTCCTGGCCCTGTACAACCAGCATAACCCGGGCGCC
TCGGCGGCCCGTGTGCGTGCCGACGGCGCTGGAGCCGCTGCCCATCGTGTACTACGTGGGCCGCAAGC
CCAAGGTGGAGCAGCTGTCCAACATGATCGTGCGCTCCTGCAAGTGCAGC

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ACAAGGATGACGACGATAAGGTTTAA

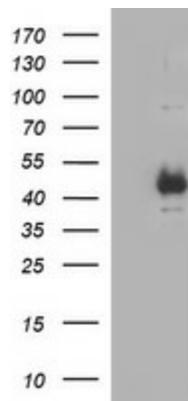


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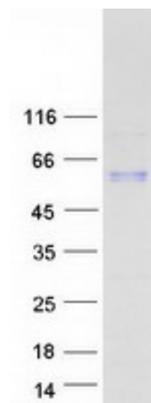
ACCN:	NM_000660
ORF Size:	1170 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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_000660.2
RefSeq Size:	2583 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
MW:	44.3 kDa

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 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]

Product images:

HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TGFB1 (Cat# RC200973, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TGFB1 (Cat# [TA506583])(1:2000).



Coomassie blue staining of purified TGFB1 protein (Cat# [TP300973]). The protein was produced from HEK293T cells transfected with TGFB1 cDNA clone (Cat# RC200973) using MegaTran 2.0 (Cat# [TT210002]).