

Product datasheet for **RG200973**

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:	TurboGFP
Symbol:	TGF beta 1
Synonyms:	CED; DPD1; IBDIMDE; LAP; TGF-beta1; TGFB; TGFbeta
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG200973 representing NM_000660 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCGCCCTCCGGGCTGCGGCTGCTGCCGCTGCTACCGCTGCTGTGGCTACTGGTCTGACGCCTG
GCCGGCCGGCCGGGACTATCCACCTGCAAGACTATCGACATGGAGCTGGTGAAGCGGAAGCGCATCGA
GGCCATCCGCGGCCAGATCCTGTCCAAGCTGCGGCTCGCCAGCCCCGAGCCAGGGGGAGGTGCCGCC
GGCCCGTGCCGAGGCCGTGCTCGCCCTGTACAACAGCACCCGCGACCGGTGGCCGGGAGAGTGCAG
AACCGGAGCCCGAGCCTGAGGCCGACTACTACGCCAAGGAGGTCACCCGCGTGTAAATGGTGGAAACCCA
CAACGAAATCTATGACAAGTTCAAGCAGAGTACACACAGCATATATATGTTCTTCAACACATCAGAGCTC
CGAGAAGCGGTACCTGAACCCGTGTTGCTCTCCCGGCGAGAGCTGCGTCTGCTGAGGCTCAAGTTAAAG
TGGAGCAGCACGTGGAGCTGTACCAGAAATACAGCAACAATTCCTGGCGATACCTCAGCAACCGGCTGCT
GGCACCAGCGACTCGCCAGAGTGGTTATCTTTGATGTCACCGGAGTTGTGCGGCAGTGGTTGAGCCGT
GGAGGGGAAATGAGGGCTTTCGCCTTAGCGCCACTGCTCCTGTGACAGCAGGGATAACACACTGCAAG
TGGACATCAACGGGTTCACTACCGGCCCGGAGGTGACCTGGCCACCATTATGGCATGAACCGGCTTT
CCTGCTTCTCATGGCCACCCCGTGGAGAGGGCCAGCATGTCAAAGCTCCCGGCACCCGAGCCCTG
GACACCAACTATTGCTTCAGCTCCAGGAGAAGAACTGCTGCGTGCAGCAGCTGTACATTGACTTCCGCA
AGGACCTCGGCTGGAAGTGGATCCACGAGCCCAAGGGCTACCATGCCAATTCTGCCTCGGCCCCTGCC
CTACATTTGGAGCCTGGACACGAGTACAGCAAGTCTGCGCCCTGTACAACCAGCATAACCCGGCGCC
TCGGCGCGCCGTGCTGCGTGCCGAGGCGCTGGAGCCGCTGCCCATCGTGTACTACGTGGCCGCAAGC
CCAAGGTGGAGCAGCTGTCCAACATGATCGTGCGCTCCTGCAAGTGCAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG200973 representing NM_000660
 Red=Cloning site Green=Tags(s)

MPPSGLRLLPLLLPLLWLLVLT PGRPAAGLSTCKTIDMELVKRKRIEAIRGQILSKLRLASPPSQGEVPP
 GPLPEAVLALYNSTRDRVAGESAEPEPEPEADYYAKEVTRVLMVETHNEIYDKFKQSTHSIYMFFNTSEL
 REAVPEPVLLSRAELRLLRLKLVKVEQHVELYQKYSNNSWRYL SNRLLAPSDSPEWLSFDVTVGVVRQWLSR
 GGEIEGFRLSAHCSDSRDNTLQVDINGFTTGRRGDLATIHGMNRPFLLLMATPLERAQHLQSSRHRRAL
 DTNYCFSSTEKNCCVRQLYIDFRKDLGWKWIHEPKGYHANFCLGPCPYIWSLDTQYSKVLALYNQHNPGA
 SAAPCCVPQALEPLPIVYVYVGRKPKVEQLSNMIVRSCKCS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



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:

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_000660.7](#)

RefSeq Size: 2346 bp

RefSeq ORF: 1173 bp

Locus ID: 7040

UniProt ID: [P01137](#)

Cytogenetics: 19q13.2

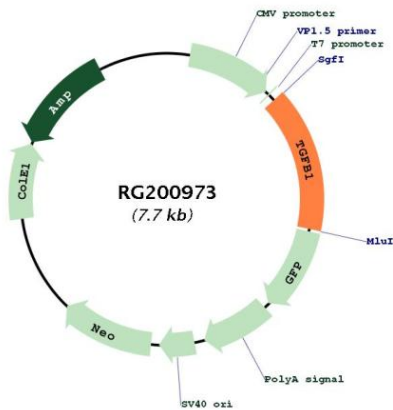
Domains: TGFb_propeptide, TGF-beta

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: 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:



Circular map for RG200973