

## **Product datasheet for TP300973**

## OriGene Technologies, Inc.

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## TGF beta 1 (TGFB1) (NM\_000660) Human Recombinant Protein

**Product data:** 

**Product Type:** Recombinant Proteins

**Description:** Recombinant protein of human transforming growth factor, beta 1 (TGFB1), 20 μg

Species: Human
Expression Host: HEK293T

**Expression cDNA Clone** >Peptide sequence encoded by RC200973 or AA Sequence: Blue=ORF Red=Cloning site Green=Tag(s)

MPPSGLRLLPLLULLVLTPGRPAAGLSTCKTIDMELVKRKRIEAIRGQILSKLRLASPPSQGEVP PGPLPEAVLALYNSTRDRVAGESAEPEPEPEADYYAKEVTRVLMVETHNEIYDKFKQSTHSIYMFFNTS ELREAVPEPVLLSRAELRLLRLKLKVEQHVELYQKYSNNSWRYLSNRLLAPSDSPEWLSFDVTGVVRQW LSRGGEIEGFRLSAHCSCDSRDNTLQVDINGFTTGRRGDLATIHGMNRPFLLLMATPLERAQHLQSSRH RRALDTNYCFSSTEKNCCVRQLYIDFRKDLGWKWIHEPKGYHANFCLGPCPYIWSLDTQYSKVLALYNQ

HNPGASAAPCCVPQALEPLPIVYYVGRKPKVEQLSNMIVRSCKCS

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV** 

Recombinant protein using RC200973 also available, TP300973M

Tag: C-Myc/DDK
Predicted MW: 28.4 kDa

**Concentration:** >0.05 μg/μL as determined by microplate BCA method

**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

**Bioactivity:** Ex vivo tissue treatment (PMID: 25595579)

**Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by

conventional chromatography steps.

**Note:** For testing in cell culture applications, please filter before use. Note that you may experience

some loss of protein during the filtration process.

Storage: Store at -80°C.

Stability: Stable for 12 months from the date of receipt of the product under proper storage and

handling conditions. Avoid repeated freeze-thaw cycles.





**RefSeq:** NP 000651

 Locus ID:
 7040

 UniProt ID:
 P01137

 RefSeq Size:
 2583

 Cytogenetics:
 19q13.2

 RefSeq ORF:
 1170

Synonyms: CED; DPD1; IBDIMDE; LAP; TGF-beta1; TGFB; TGFbeta

**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]

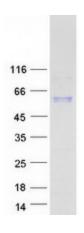
**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Secreted Protein, Transcription Factors

**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

## **Product images:**



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]).