

Active Native Human TGF- β1

Cat. No. TGFB1-21H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified from human platelets. Human blood products should always be treated in accordance with universal handling precautions.
Species	Human
Source	Human Platelets
Description	Transforming growth factor betas (TGF Betas) mediate many cell-cell interactions that centigradecur during embryonic development. Three TGF Betas have been identified in mammals. TGF Beta 1, TGF Beta 2 and TGF Beta 3 are each synthesized as precursor proteins that are very similar in that each is cleaved to yield a 112 amino acid polypeptide that remains ass centigradeiated with the latent portion of the molecule.
Form	Lyophilized from a 0.2 µm filtered solution in 35% acetonitrile and 0.1% TFA, containing 50 µg of bovine serum albumin per 1 µg of cytokine.
Bio-activity	Measured by its ability to inhibit the IL-4-dependent proliferation of mouse HT-2 cells. Resazurin dye was used in the assay as a fluorescence indicator for cell proliferation (Tsang, M. et al., 1995, Cytokine 7:389). The ED50 for this effect is typically 0.04 - 0.1 ng/mL.
Molecular Mass	The mature disulfide-linked homodimeric human TGF-β1 contains two 112 amino acid residue peptides and has a predicted molecular mass of approximately 25 kDa.

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Endotoxin	< 1.0 eu per 1 µg of the cytokine as determined by the lal
Purity	>97%, as determined by SDS-PAGE and visualized by silver stain.
Usage	FOR RESEARCH USE ONLY
Quality Control Test	Lyophilized samples are stable for up to twelve months from date of receipt at -20 centigrade to -70 centigrade. Upon reconstitution, this cytokine can be stored under sterile conditions at 2° - 8 centigrade for one month or at -20 centigrade to -70 centigrade in a manual defrost freezer for three months without detectable loss of activity. Avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile 4 mM HCl containing at least 0.1% human serum albumin or bovine serum albumin be added to the vial to prepare a st centigradek solution of no less than 1 µg/mL.
Warning	Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	TGFB1 transforming growth factor, beta 1 [Homo sapiens]
Official Symbol	TGFB1
Synonyms	TGFB1; transforming growth factor, beta 1; DPD1, TGFB; transforming growth factor beta-1; Camurati Engelmann disease; CED; TGFbeta; TGF-beta-1; TGF-beta 1 protein; latency-associated peptide; LAP; DPD1; TGFB;
Gene ID	7040
mRNA Refseq	NM_000660

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Protein Refseq	NP_000651
MIM	190180
UniProt ID	P01137
Chromosome Location	19q13.1
Pathway	ACE Inhibitor Pathway, organism-specific biosystem; ALK1 signaling events, organism-specific biosystem; Adipogenesis, organism-specific biosystem; Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem; Cell cycle, organism-specific biosystem; Cell cycle, organism-specific biosystem;
Function	enzyme binding; eukaryotic cell surface binding; growth factor activity; protein N-terminus binding; protein binding; protein heterodimerization activity; protein homodimerization activity; type II transforming growth factor beta receptor binding; type II transforming growth factor beta receptor binding;

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