Active Recombinant Human TGFB1, MIgG2a Fc-tagged

Cat. No. TGFB1-219H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	The extracellular domain of a mutant human TGFβ1 is fused to the N-terminus of the Fc region of mouseIgG2a. Site-directed mutagenesis was used to change three cysteine codons into a serine codon that are located in the pro region of the TGF-β precursor at
Species	Human
Source	CHO
Description	This gene encodes a member of the transforming growth factor beta (TGFB) family of cytokines, which aremultifunctional peptides that regulate proliferation, differentiation, adhesion, migration, and other functionsin many cell types. Many cells have TGFB receptors, and the protein positively and negatively regulates manyother growth factors. The secreted protein is cleaved into a latency-associated peptide (LAP) and a mature TGFB1peptide, and is found in either a latent form composed of a TGFB1 homodimer, a LAP homodimer, and a latentTGFB1-binding protein, or in an active form composed of a TGFB1 homodimer. The mature peptide may also formheterodimers with other TGFB family members. This gene is frequently upregulated in tumor cells, and mutations inthis gene result in Camurati-Engelmann disease
Form	Lyophilized from 0.2μm-filtered solution in PBS.
Bio-activity	Acts in conjunction with rapamycin to inhibit T cell proliferation and induce the denovo

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	generation of Foxp3+ Treg in the periphery, and inhibiting IL6-mediated Th17 cell differentiation.
Molecular Mass	70 KDa (monomer)
AA Sequence	The extracellular domain of a mutant human TGFβ1 is fused to the N-terminus of the Fc region of mouseIgG2a. Site-directed mutagenesis was used to change three cysteine codons into a serine codon that are located in the pro region of the TGF-β precursor at
Endotoxin	<0.06 eu/μg="" as="" determined="" by="" lal="" test.="">
Purity	>98%, by SDS-PAGE under reducing conditions.
Stability	Stable for at least 1 year after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C.
Reconstitution	Reconstitute at 100μg/ml in sterile PBS.
Warning	Avoid 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;

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Gene ID	7040
mRNA Refseq	NM_000660
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

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