

Active Recombinant Human TGFB1 Protein, Fc tagged

Cat. No. TGFB1-706H Lot. No. (See product label)

SPECIFICATION

Product Overview

The mutant human TGF- β 1 (including aa 30-278 (Latency-Associated Peptide, LAP) and aa279-390 (TGF- β 1)) is fused to the N-terminus of the Fc region of human IgG4. 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 amino acid positions 33, 223, and 225.

Species

Human

Source

CHO

Description

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.

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Form	Lyophilized from 0.2µm filtered solution in PBS.
Bio-activity	Shows the biological function of the TGFβ1 moiety and exerts a prolonged circulating half-life caused by the modified Fc domain.
Endotoxin	< 0.06 EU/µg protein
Purity	≥ 98% (SDS-PAGE)
Storage	Short Term Storage: +4 centigrade Long Term Storage: -20 centigrade Use/Stability: Stable for at least 1 year after receipt when stored at -20 centigrade. Working aliquots are stable for up to 3 months when stored at -20 centigrade. Avoid freeze/thaw cycles. Centrifuge lyophilized vial before opening and reconstitution.
Shipping	BLUE ICE
Reconstitution	Reconstitute with 100 µl sterile water. Add 1× PBS to the desired protein concentration.

GENE INFORMATION

Gene Name	TGFB1 transforming growth factor, beta 1 [Homo sapiens (human)]
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

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mRNA Refseq	NM_000660
Protein Refseq	NP_000651
MIM	190180
UniProt ID	P01137

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