

Active Recombinant Human TGFB1 Protein (Ala279-Ser390), GMP Grade

Cat. No. TGFB1-02HG **Lot. No.** (See product label)

SPECIFICATION

Product Overview

GMP recombinant human TGF-beta 1 protein (Ala279-Ser390) without tag was expressed in Chinese Hamster Ovary cell line and manufactured and tested under cGMP guidelines.

Species

Human

Source

CHO

ProteinLength

Ala279-Ser390

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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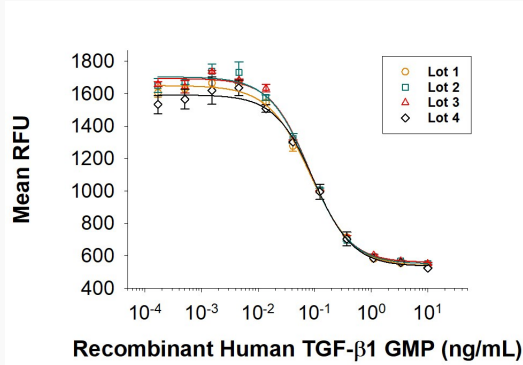
Form	Disulfide-linked homodimer
Bio-activity	Measured by its ability to inhibit the IL-4-dependent proliferation of HT-2 mouse T cells. The ED50 for this effect is 0.04-0.2 ng/mL. The specific activity of recombinant human TGF-beta 1 GMP is >1.0 x 10⁷ units/mg, which is calibrated against the human TGF- beta 1 Standard.
Molecular Mass	Predicted Molecular Mass: 12.8 kDa (monomer) SDS-PAGE: 12 kDa, reducing conditions; 24 kDa, non-reducing conditions
N-terminal Sequence Analysis	Ala-Leu-Asp-Thr-Asn-Tyr-(Cys)-Phe-Ser-Ser
Endotoxin	<0.10 EU/ µg of the protein by the LAL method.
Purity	>97%, by SDS-PAGE with silver staining.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. A minimum of 12 months when stored at ≤ -20 centigrade as supplied. Refer to lot specific COA for the Use by Date. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, ≤ -20 centigrade under sterile conditions after reconstitution.
Storage Buffer	Lyophilized from a 0.2 µm filtered solution in Acetonitrile and TFA.
Reconstitution	Reconstitute at 100 µg/mL in 4 mM HCl.
Shipping	The product is shipped with polar packs.

GENE INFORMATION

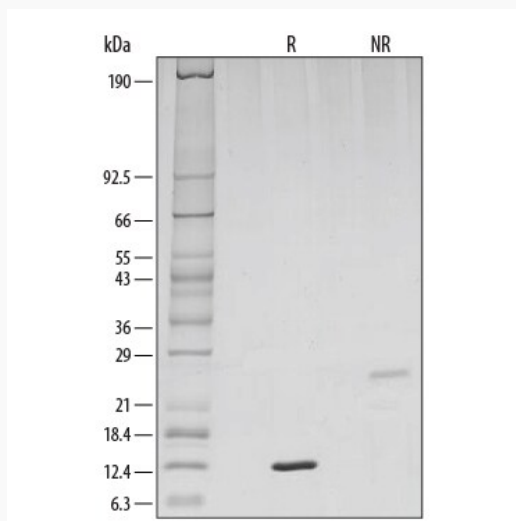
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Gene Name	TGFB1 transforming growth factor, beta 1 [Homo sapiens]
Official Symbol	TGFB1
Synonyms	TGFB1; transforming growth factor, beta 1; DPD1, TGFB; transforming growth factor beta-1; Camurati Engelmann disease; CED; TGFbeta; TGF-beta-1; TGF-beta 1 protein; latency-associated peptide; LAP; DPD1; TGFB;
Gene ID	7040
mRNA Refseq	NM_000660
Protein Refseq	NP_000651
MIM	190180
UniProt ID	P01137
Bioactivity	

SDS-PAGE



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