Active Recombinant Human TGFB1 Protein, Pre-aliquoted

Cat. No. TGFB1-17H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TGFB1 Protein, Ala279 - Ser390, was expressed in CHO.
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.
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.

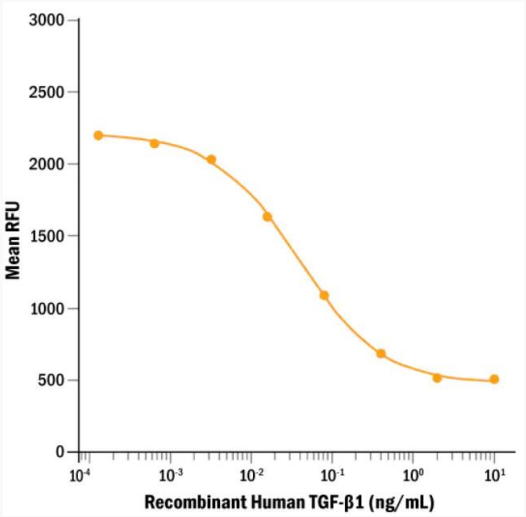
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Molecular Mass	Predicted Molecular Mass:12.8 kDa (monomer) SDS-PAGE: 12 kDa, reducing conditions, 24 kDa, non-reducing conditions
N-terminal Sequence Analysis	Ala279
Endotoxin	< 0.01 EU/μg of the protein by the LAL method.
Purity	> 97% by SDS-PAGE under reducing conditions and visualized by silver stain.
Stability	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. • 6 months from date of receipt at room temperature as supplied. • 12 months from date of receipt at 2-8 centigrade as supplied. • 1 month at 2-8 centigrade under sterile conditions after reconstitution. • 3 months at -20 to -80 centigrade under sterile conditions after reconstitution.
Reconstitution	For a stock solution, reconstitute at 20 μg/mL in sterile 4 mM HCl, or simply roll Pre-aliquoted directly into cell culture medium for immediate use. Note: Purified recombinant human TGF-beta 1 is an extremely hydrophobic protein that adheres strongly to surfaces.
Shipping	The product is shipped at ambient temperature.

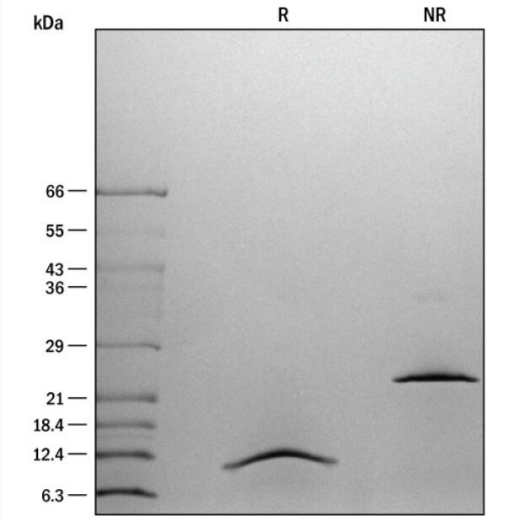
GENE INFORMATION

Gene Name	TGFB1 transforming growth factor beta 1 [Homo sapiens (human)]
Official Symbol	TGFB1
Synonyms	TGFB1; transforming growth factor beta 1; CED; LAP; DPD1; TGFB; IBDIMDE; TGFbeta; TGF-beta1; transforming growth factor beta-1 proprotein; TGF-beta-1;

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	latency-associated peptide; prepro-transforming growth factor beta-1; transforming growth factor beta1
Gene ID	7040
mRNA Refseq	NM_000660
Protein Refseq	NP_000651
MIM	190180
UniProt ID	P01137
Bio-activity	 Recombinant Human TGF-beta 1 inhibits Recombinant Mouse IL-4 induced proliferation in the HT-2 mouse T cell line. The ED50 is 0.04-0.2 ng/mL.

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SDS-PAGE	 1 μg/lane of Recombinant Human TGF-beta 1 was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized with silver staining, showing single bands at 12 kDa and 24 kDa, respectively.

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