

Recombinant Human TGFB1 protein, His-tagged

Cat. No. TGFB1-336H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human TGFB1 protein (Leu30-Arg278), fused to His tag at N-terminus, was expressed in human 293 cells (HEK293).

Species Human

Source HEK293

ProteinLength 249

Description

Transforming growth factor beta 1 (TGFB1) is also known as TGF- β 1, CED, DPD1, TGFB. is a polypeptide member of the transforming growth factor beta superfamily of cytokines. It is a secreted protein that performs many cellular functions, including the control of cell growth, cell proliferation, cell differentiation and apoptosis. The TGFB1 protein helps control the growth and division (proliferation) of cells, the process by which cells mature to carry out specific functions (differentiation), cell movement (motility), and the self-destruction of cells (apoptosis). The TGFB1 protein is found throughout the body and plays a role in development before birth, the formation of blood vessels, the regulation of muscle tissue and body fat development, wound healing, and immune system function. TGFB1 is particularly abundant in tissues that make up the skeleton, where it helps regulate bone growth, and in the intricate lattice that forms in the spaces between cells (the extracellular matrix). Within cells, this protein is turned off (inactive) until it receives a chemical signal to become active. TGFB1 plays an important role in controlling the immune system, and shows different activities on different types of cell, or cells at different developmental stages. Most

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immune cells (or leukocytes) secrete TGFB1. TGFB1 has been shown to interact with TGF beta receptor 1, LTBP1, YWHAE, EIF3I and Decorin.

Form Lyophilized from 0.22 um filtered solution in PBS, pH7.4, 10% trehalose.

Molecular Mass The protein has a calculated MW of 29.8 kDa. The protein migrates as 35-45 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin Less than 1.0 EU per ug by the LAL method.

Purity >95% as determined by SDS-PAGE.

Storage

For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- 20 centigrade to -70 centigrade for 12 months in lyophilized state;
- 70 centigrade for 3 months under sterile conditions after reconstitution.

Reconstitution It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name TGFB1

Official Symbol TGFB1

Synonyms CED; LAP; DPD1; TGFB; IBDIMDE; TGFbeta; TGF-beta1

Gene ID 7040

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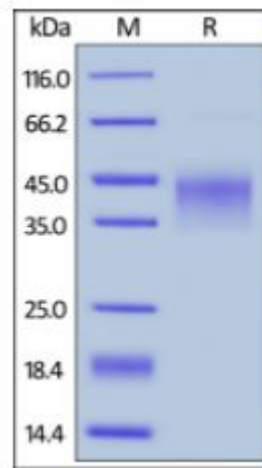
mRNA Refseq [NM_000660.7](#)

Protein Refseq [NP_000651.3](#)

MIM [190180](#)

UniProt ID [P01137](#)

**SDS-PAGE of
TGFB1-336H**



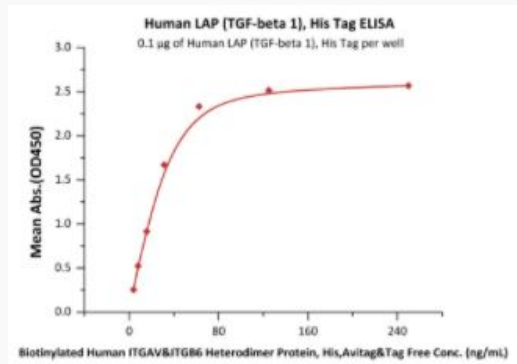
Human LAP (TGF-beta 1), His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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**Bioactivity-ELISA of
TGFB1-336H**



Immobilized Human LAP (TGF-beta 1), His Tag at 1 µg/mL (100 µL/well) can bind Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free with a linear range of 2-31 ng/mL (QC tested).

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