

Recombinant Human TGFB1 protein

Cat. No. TGFB1-518H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human TGFB1 protein (Ala279-Ser390) carries no tag and was expressed in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	112
Description	<p>Transforming growth factor beta 1 (TGFB1) is also known as TGF-β1, 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</p>

 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

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 0.085% TFA in 60% ACN, 10% trehalose.

Molecular Mass

The protein has a calculated MW of 12.8 kDa (monomer). The protein migrates as 14 kDa (monomer) under reducing (R) condition, and 25 kDa (Dimer) under non-reducing (NR) condition (SDS-PAGE).

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

TGFB1; transforming growth factor, beta 1; DPD1, TGFB; transforming growth factor

 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

beta-1; Camurati Engelmann disease; CED; TGFbeta; TGF-beta-1; TGF-beta 1 protein; latency-associated peptide; LAP; DPD1; TGFB

Gene ID [7040](#)

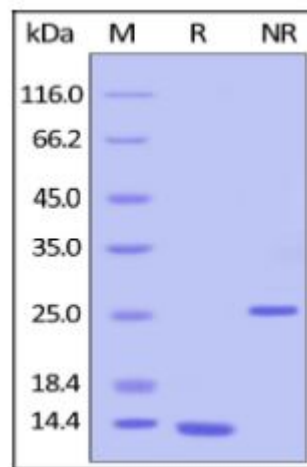
mRNA Refseq [NM_000660](#)

Protein Refseq [NP_000651](#)


MIM [190180](#)

UniProt ID [P01137](#)

**SDS-PAGE of
TGFB1-518H**



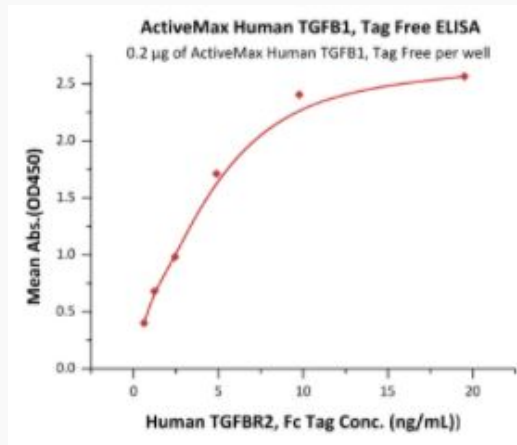
Human TGFB1, Tag Free on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

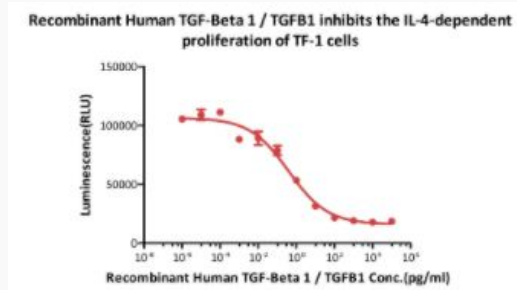
 45-1 Ramsey Road, Shirley, NY 11967, USA

**Bioactivity-ELISA of
TGFB1-518H**



Immobilized Human TGFB1, Tag Free at 2 µg/mL (100 µL/well) can bind Human TGFB2, Fc Tag with a linear range of 0.6-5 ng/mL (QC tested).

**Bioactivity-Cell
based assay of
TGFB1-518H**



Human TGFB1, Tag Free inhibits the IL-4-dependent proliferation of TF-1 cells. The ED50 for this effect is 0.390-0.476 pg/ml (Routinely tested).

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