

# Recombinant Human Mature TGF-beta 2 Protein

Catalog No.: RP00452 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	7042	P61812

### Tags

No tag

### Synonyms

TGFB2;G-TSF;LDS4;TGF-beta2

## Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Calculated MW	Observed MW
12.72 kDa	13-15 kDa

### Endotoxin

< 1 EU/ $\mu$ g of the protein by LAL method.


### Formulation

Lyophilized from a 0.2  $\mu$ m filtered solution of 4 mM HCl. Contact us for customized product form or formulation.

### Reconstitution

Centrifuge the tube before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## Background

This protein belongs a member of the transforming growth factor beta (TGFB) family of cytokines, which are multifunctional peptides that regulate proliferation, differentiation, adhesion, migration, and other functions in many cell types by transducing their signal through combinations of transmembrane type I and type II receptors (TGFBR1 and TGFBR2) and their downstream effectors, the SMAD proteins. Disruption of the TGFB/SMAD pathway has been implicated in a variety of human cancers. The encoded protein is secreted and has suppressive effects of interleukin-2 dependent T-cell growth. Translocation t(1;7)(q41;p21) between this gene and HDAC9 is associated with Peters' anomaly, a congenital defect of the anterior chamber of the eye. The knockout mice lacking this gene show perinatal mortality and a wide range of developmental, including cardiac, defects. Alternatively spliced transcript variants encoding different isoforms have been identified.

## Basic Information

### Description

Recombinant Human TGF-beta 2 Protein is produced by Human Cell expression system. The target protein is expressed with sequence (Ala303-Ser414) of human TGF-beta 2/TGFB2 (Accession #P61812).

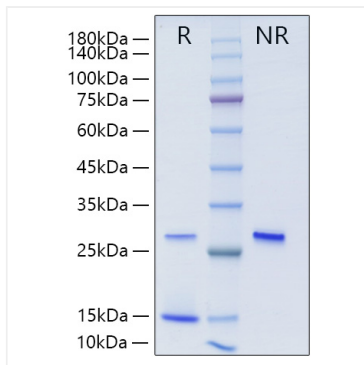
### Bio-Activity

Recombinant Human Mature TGF-beta 2 Protein inhibit the IL-4-dependent proliferation of HT-2 mouse T cells. The ED50 for this effect is 0.058-0.232 ng/mL, corresponding to a specific activity of  $4.3 \times 10^6 \sim 1.72 \times 10^7$  units/mg.

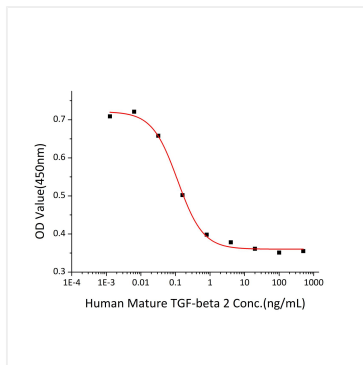
### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

## Validation Data



Recombinant Human Mature TGF-beta 2 Protein was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions, showing bands at 13-15 kDa and 25-30 kDa, respectively.



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