

# Recombinant Mouse/Rat Mature TGF-beta 1 Protein

Catalog No.: RP00671 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Mouse	21803	P04202

### Tags

No tag

### Synonyms

TGF-beta1;Tgfb;Tgfb-1;TGFbeta1;CED;DPD1;LAP;TGFB;TGFbeta;TGFB1

## Product Information

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

Calculated MW	Observed MW
12.81 kDa	15 kDa

### Endotoxin

< 0.01 EU/μg

### Formulation

Lyophilized from a 0.2 μm filtered solution of 50 mM Glycine, 150 mM NaCl, pH 3.5. Contact us for customized product form or formulation.

### Reconstitution

Centrifuge the vial 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

Transforming growth factor beta 1 (TGFβ1) is the prototype of a growing superfamily of peptide growth factors and plays a prominent role in a variety of cellular processes, including cell-cycle progression, cell differentiation, reproductive function, development, motility, adhesion, neuronal growth, bone morphogenesis, wound healing, and immune surveillance. TGF-β 1, TGF-β 2 and TGF-β 3 signal via the same heteromeric receptor complex, consisting of a ligand binding TGF-β receptor type II (Tβ R-II), and a TGF-β receptor type I (Tβ R-I). Signal transduction from the receptor to the nucleus is mediated via SMADs. TGF-β expression is found in cartilage, bone, teeth, muscle, heart, blood vessels, haematopoietic cells, lung, kidney, gut, liver, eye, ear, skin, and the nervous system.

## Basic Information

### Description

Recombinant Mouse TGF-beta 1/TGFB1 Protein is produced by Human cells expression system. The target protein is expressed with sequence (Ala279-Ser390) of mouse TGF-beta 1/TGFB1 (Accession #P04202).

### Bio-Activity

Measured by its ability to inhibit the IL-4-dependent proliferation of HT-2 Mouse T cells. The ED<sub>50</sub> for this effect is 0.054-0.214 ng/mL, corresponding to a specific activity of 4.7×10<sup>6</sup>~1.85×10<sup>7</sup> units/mg.

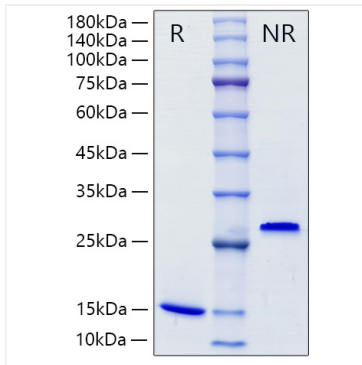
### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

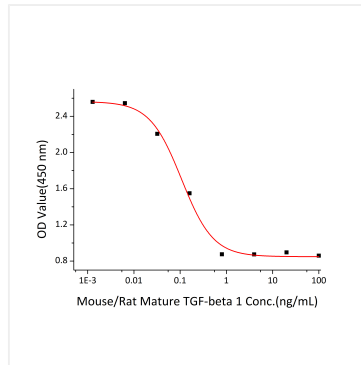
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

## Validation Data



Recombinant Mouse TGF-beta 1/TGFB1 Protein was determined by SDS-PAGE under reducing and non-reducing conditions



Recombinant Mouse/Rat Mature TGF-beta 1 inhibit the IL-4-dependent proliferation of HT-2 mouse T cells. The ED<sub>50</sub> for this effect is 0.054-0.214 ng/mL, corresponding to a specific activity of  $4.7 \times 10^6 \sim 1.85 \times 10^7$  units/mg.