

# 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;L AP;TGFB;TGFbeta;TGFB1

### **Product Information**

**Source** Purification HEK293 cells ≥ 95 % as

determined by SDS-

PAGE.

Calculated MW Observed MW

12.81 kDa 15 kDa

#### **Endotoxin**

< 0.01 EU/ $\mu$ g of the protein by LAL method

#### **Formulation**

Lyophilized from a 0.2 µm filtered solution of 50 mM Glycine,150 mM NaCl, pH3.5. 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 stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

### Contact

### **Background**

Transforming growth factor beta 1 (TGF $\beta$ 1) 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,

celldifferentiation,reproductivefunction,development,motility,adhesion,neuronalgrowth ,bonemorphogenesis, wound healing, and immune surveillance. TGF-  $\beta$  1, TGF-  $\beta$  2 and TGF-  $\beta$  3 signal via the sameheteromeric receptor complex, consisting of a ligand binding TGF-  $\beta$  receptor type I (T  $\beta$  R-II), and a TGF-  $\beta$  receptor type I (T  $\beta$  R-I). Signal transduction from the receptor to the nucleus is mediated via SMADs. TGF-  $\beta$  expression is found in cartilage, bone, teeth, muscle, heart, blood vessels, haematopoitic 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 $_{50}$  for this effect is 0.054-0.214 ng/mL, corresponding to a specific activity of  $4.7\times10^6\sim1.85\times10^7$  units/mg.

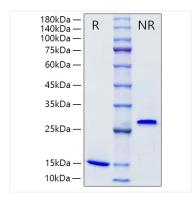
### Storage

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

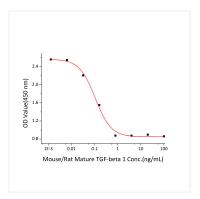
After reconstitution, the protein solution is stable at -20  $^{\circ}$ C for 3 months, at 2-8  $^{\circ}$ C for up to 1 week.

Avoid repeated freeze/thaw cycles.

## **Validation Data**



Recombinant Mouse/Rat Mature TGF-beta 1 Protein was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions.



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