

Recombinant Rat Latent TGF-beta 1 Protein

Catalog No.: RP01168 **Recombinant** **1 Publications**

Sequence Information

Species	Gene ID	Swiss Prot
Rat	59086	P17246

Tags

N-His

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
42.13 kDa	15 kDa,40-45 kDa,55-60 kDa

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. 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 4 mM HCl. 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.

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Background

Basic Information

Description

Recombinant Rat Latent TGF-beta 1 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Leu30-Ser390) of rat TGF-beta 1 (Accession #NP_067589.1) fused with a 8×His tag at the N-terminus.

Bio-Activity

1. Measured by its ability to inhibit cell proliferation of TF-1 human erythroleukemic cells. The ED₅₀ for this effect is 0.05-0.2 ng/mL, corresponding to a specific activity of 5.0×10⁶-2.0×10⁷ units/mg. | 2. Recombinant Rat TGF-beta 1 protein stimulates BMP7 expression in Rat fibroblast cells. 20 ng/mL of Rat TGF-beta 1 can effectively stimulate the expression of BMP7 gene after 48h. | 3. Measured by its ability to inhibit the IL-4 (Catalog: RP01161)-dependent proliferation of HT-2 mouse T cells. The ED₅₀ for this effect is 0.78-3.1 ng/mL, corresponding to a specific activity of 3.23×10⁵~1.28×10⁶ units/mg.

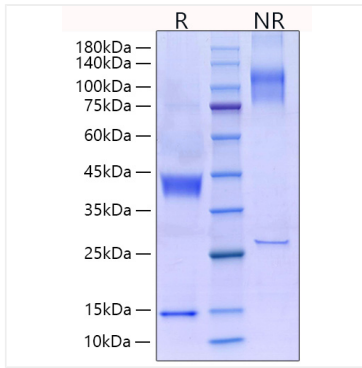
Storage

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

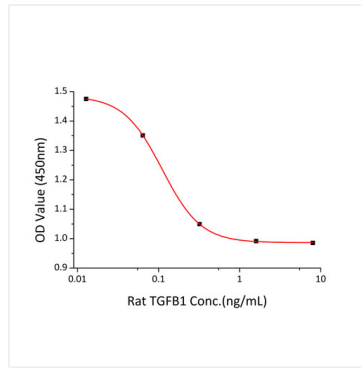
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

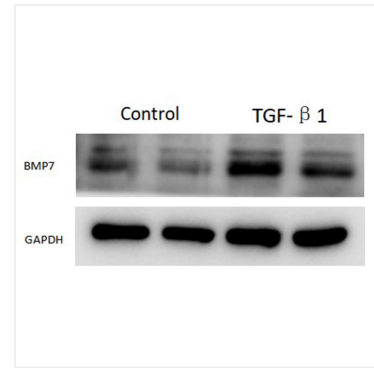
Validation Data



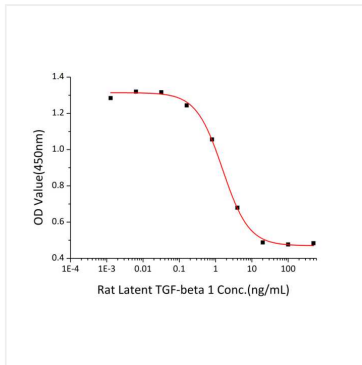
Recombinant Rat Latent TGF-beta 1 Protein was resolved with SDS PAGE under reducing (R) and non-reducing (NR) conditions, showing single bands at 15,40-45,55-60 kDa and 30, 80-90,110-120kDa, respectively.



Recombinant Rat TGF-beta 1 inhibits cell proliferation of TF-1 human erythroleukemic cells. The ED_{50} for this effect is 0.05-0.2 ng/mL, corresponding to a specific activity of 5.0×10^5 - 2.0×10^7 units/mg.



Recombinant Rat TGF-beta 1 protein stimulates BMP7 expression in Rat fibroblast cells. 20 ng/mL of Rat TGF-beta 1 can effectively stimulate the expression of BMP7 gene after 48h.



Recombinant Rat Latent TGF-beta 1 inhibit the IL-4(Catalog: RP01161)-dependent proliferation of HT-2 mouse T cells. The ED_{50} for this effect is 0.78-3.1 ng/mL, corresponding to a specific activity of 3.23×10^5 - 1.28×10^6 units/mg.