

Recombinant Human Latent TGF-beta 1 (C33S) Protein

Catalog No.: RP00161

Recombinant

2 Publications

Sequence Information

Species	Gene ID	Swiss Prot
Human	7040	P01137

Tags

N-His

Synonyms

TGFB1; CED; DPD1; LAP; TGFB; TGfbeta; transforming growth factor beta-1; TGF-beta 1; CED; DPD1; LAP; TGFB; TGfbeta; TGF-β

Product Information

Source	Purification
HEK293 cells	≥ 95 % as determined by SDS-PAGE.

Calculated MW	Observed MW
42.09 kDa	13 kDa, 42 kDa, 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.

Contact

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Background

Basic Information

Description

Recombinant Human Latent TGF-beta 1 (C33S) Protein is produced by HEK293 expression system. The target protein is expressed with sequence (Leu30-Ser390(C33S)) of human TGF-beta 1 (Accession #NP_000651.3) fused with an 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 typically 0.5-2 ng/mL, corresponding to a specific activity of 5.0×10⁵~2.0×10⁶ units/mg. 2. Measured by its binding ability in a functional ELISA. Immobilized recombinant human TGFB1 at 2 μg/mL (100 μL/well) can bind recombinant human TGFBR2 with a linear range of 1-5 ng/mL. 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 9.75-39 ng/mL, corresponding to a specific activity of 2.6×10⁴~1.0×10⁵ units/mg.

Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Storage

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

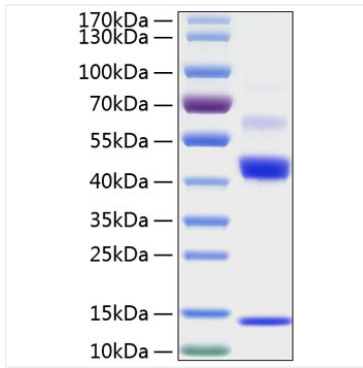
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

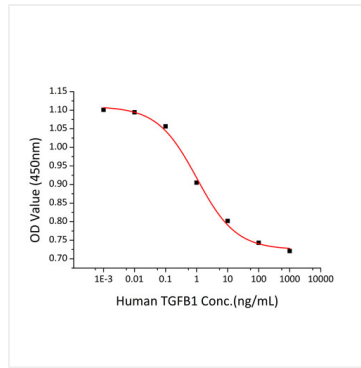
Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

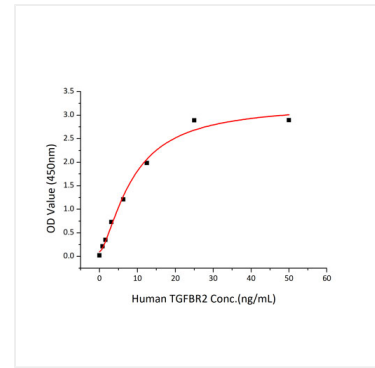
Validation Data



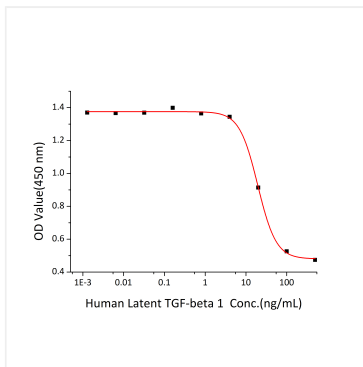
Recombinant Human Latent TGF-beta 1 (C33S) Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human TGF-beta 1 inhibits cell proliferation of TF-1 human erythroleukemic cells. The ED_{50} for this effect is typically 0.5-2 ng/mL, corresponding to a specific activity of $5.0 \times 10^5 \sim 2.0 \times 10^6$ units/mg.



Immobilized recombinant human TGFβ1 at 2 μg/mL (100 μL/well) can bind recombinant human TGFβR2 with a linear range of 1-5 ng/mL.



Recombinant Human TGF-beta 1 inhibit the IL-4(Catalog: RP01161)-dependent proliferation of HT-2 mouse T cells. The ED_{50} for this effect is 9.75-39 ng/mL, corresponding to a specific activity of $2.6 \times 10^4 \sim 1.0 \times 10^5$ units/mg.