

RP00452

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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

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 (TGFB1 and TGFB2) 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.

Product Information

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

Endotoxin

< 1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.2 μm 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.

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

Measured by its ability to inhibit the IL-4-dependent proliferation of HT-2 mouse T cells. The ED₅₀ for this effect is 0.15-0.58 ng/mL, corresponding to a specific activity of 1.72×10⁶~6.67×10⁶ units/mg.

Storage

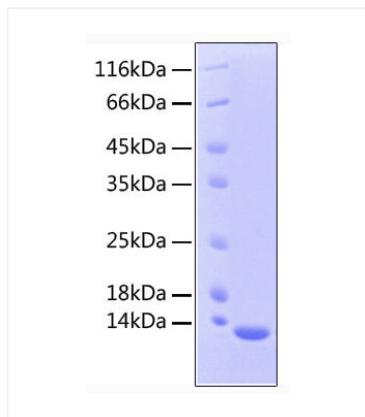
Store the lyophilized protein at -20°C to -80 °C for long term. After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week. Avoid repeated freeze/thaw cycles.

Contact

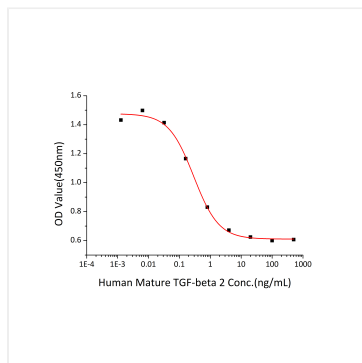


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Validation Data



Recombinant protein Human TGF-beta 2/TGFB2 was determined by SDS-PAGE under reducing conditions with Coomassie Blue, showing a band at 12 kDa.



Recombinant Human Mature TGF-beta 2 inhibit the IL-4-dependent proliferation of HT-2 mouse T cells. The ED₅₀ for this effect is 0.15-0.58 ng/mL, corresponding to a specific activity of $1.72 \times 10^6 \sim 6.67 \times 10^6$ units/mg.