

Recombinant Mouse Latent TGF-beta 2 Protein

Catalog No.: RP01819 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Mouse	21808	P27090

Tags
N-8*His

Synonyms
BB105277; TGF-beta 2; Tgf-beta2;
Tgfb-2;TGFB2

Product Information

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

Endotoxin
< 0.1 EU/μg

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

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.

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Background

TGF beta 2 (Transforming growth factor beta 2), an extracellular glycosylated protein, which belongs to the TGF-beta family. TGF-beta regulates key mechanisms of tumor development, namely immunosuppression, metastasis, angiogenesis, and proliferation. TGF beta 2 suppression is a promising therapeutic approach for malignant tumor therapy. The signaling pathway of TGF beta 2/Smad plays an important role in the pathological process in posterior capsule opacification (PCO) after cataract surgery. Silencing Smad2 and Smad3 efficiently blocked the effect of TGF beta 2 on cell proliferation, migration, and extracellular matrix production. TGF beta 2 activation of MEK3/ERK1/2/5 signaling modulates Has2 expression and hyaluronan (HA) production leading to the induction of epithelial to mesenchymal transformation (EMT) events. Besides, the upregulation of the TGF beta 2 level is a common pathological feature of Alzheimer's disease (AD) brains and suggests that it may be closely linked to the development of neuronal death related to AD.

Basic Information

Description

Recombinant Mouse Latent TGF-beta 2 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Leu21-Ser414) of mouse Latent TGF-beta 2 (Accession #NP_033393.2) fused with a 8×His tag at the N-terminus.

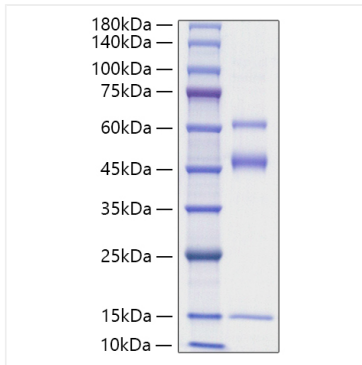
Bio-Activity

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 2.31-9.23 ng/mL, corresponding to a specific activity of 1.08×10⁵~4.33×10⁵ units/mg.

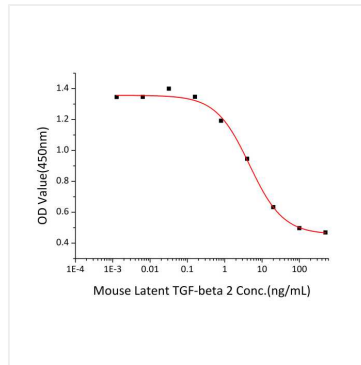
Storage

Store the lyophilized protein at -20°C to -80°C for 12 months. 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 Latent TGF-beta 2 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 15-75 kDa.



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