

Recombinant Human LAP TGF-beta-1(C33S) Protein

Catalog No.: RP01459 **Recombinant**

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	> 90% by SDS-PAGE.

Endotoxin

<0.1EU/μg

Formulation

Lyophilized from a 0.22 μm filtered solution of 50mM Glycine, 150mM NaCl, pH 3.2.

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.

Background

TGF-beta 1 is a member of the transforming growth factor beta (TGF-beta) family. The transforming growth factor-beta family of polypeptides are involved in the regulation of cellular processes, including cell division, differentiation, motility, adhesion and death. TGF-beta 1 positively and negatively regulates many other growth factors. It inhibits the secretion and activity of many other cytokines including interferon-γ, tumor necrosis factor-alpha and various interleukins. It can also decrease the expression levels of cytokine receptors. Meanwhile, TGF-beta 1 also increases the expression of certain cytokines in T cells and promotes their proliferation, particularly if the cells are immature. TGF-beta 1 also inhibits proliferation and stimulates apoptosis of B cells, and plays a role in controlling the expression of antibody, transferrin and MHC class II proteins on immature and mature B cells. As for myeloid cells, TGF-beta 1 can inhibit their proliferation and prevent their production of reactive oxygen and nitrogen intermediates. However, as with other cell types, TGF-beta 1 also has the opposite effect on cells of myeloid origin. TGF-beta 1 is a multifunctional protein that controls proliferation, differentiation and other functions in many cell types. It plays an important role in bone remodeling as it is a potent stimulator of osteoblastic bone formation, causing chemotaxis, proliferation and differentiation in committed osteoblasts. Once cells lose their sensitivity to TGF-beta1-mediated growth inhibition, autocrine TGF-beta signaling can promote tumorigenesis. Elevated levels of TGF-beta1 are often observed in advanced carcinomas, and have been correlated with increased tumor invasiveness and disease progression.

Basic Information

Description

Recombinant Human LAP TGF-beta-1(C33S) Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Leu30-Arg278(Cys33Ser)) of human LAP (TGF-beta 1) (Accession #NP_000651.3) fused with a 8xHis tag at the N-terminus.

Bio-Activity

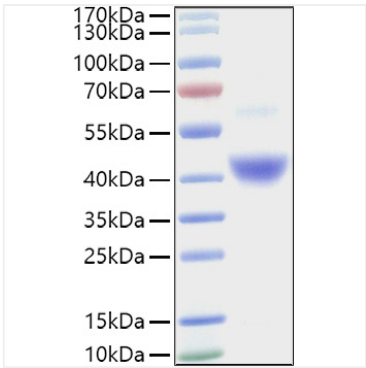
Storage

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 Human LAP TGF-beta-1(C33S)
Protein was determined by SDS-PAGE with
Coomassie Blue, showing a band at
40-48kDa.