


Human TGF- β protein

Cat #: PRP1048

Size: 5ug/20ug/100ug/1mg

Product Information

	Product Name: Human TGF- β protein		
REF	Catalog Number: PRP1048	LOT	Lot Number: Refer to product label
	Purity: > 98 % as determined by SDS-PAGE		
	Storage: Store at -20°C		Preparation method: E.coli
	Shipping: The product is shipped at ambient temperature.		

Background: TGF- β is a complex of two proteins, the inactive binding protein (LAP) and TGF- β , derived from the cleavage activation of a common 75 kDa precursor protein. LAP proteins regulate TGF- β activity spatially and temporally by isolating TGF- β along with latent TGF- β -binding protein (LTBP) in the extracellular matrix. Many stimuli, such as proteases, platelet-reactive protein-1, reactive oxygen species, and certain integrins, activate TGF- β release. Activated TGF- β binds to T β RII homodimers, which then form complexes with T β RI homodimers. This oligoreceptor complex phosphorylates part of the Smad protein, which subsequently induces or inhibits many target genes. TGF- β binding also activates the Erk2, p38, and Jnk pathways via TAK1. Activated TGF- β activity includes proliferation, angiogenesis, and promotion or inhibition of many immune activities. Latent TGF- β binds to GARP on the surface of regulatory T cells and may directly produce its immunosuppressive activity.

Sequence: Amino acid sequence derived from Human TGF- β (Met 278-Asn 390)(P01137) was expressed with 6 \times His tag at the C-terminus.

Protein length: The protein has a calculated MW of 13.7 kDa.

Biological Activity: Measure by its ability to inhibit IL-4-induce proliferation in HT-2 cells. The ED₅₀ for this effect is < 0.1ng/mL.

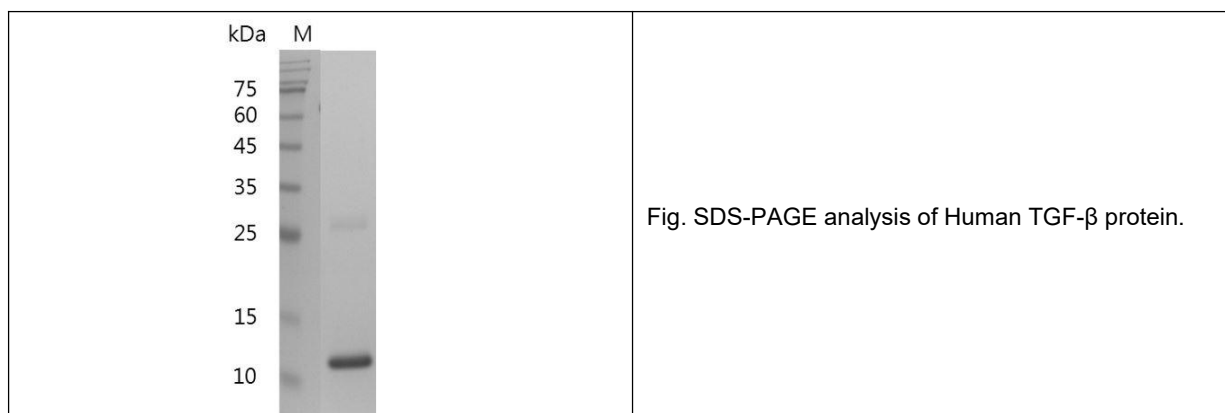
Endotoxin: <0.1 EU per 1 μ g of the protein by the LAL method.

Formulation: Lyophilized from 20 mM sodium citrate, 0.2 M NaCl, pH 4.5.

Storage Instructions: Lyophilized protein product should be stored desiccated below -18°C. Upon reconstitution, the protein should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a

carrier protein. (5% HSA , 10%FBS or 0.1%BSA). Please prevent freeze-thaw cycles.

Usage notes: Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized recombinant human TGF- β protein to a concentration of 0.1-1 mg/mL in 4 mM HCl, and keep at room temperature for at least 20 min to fully dissolve. Please avoid vortex vigorously.



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