


Human TGF- β 1 protein

Cat #: PRP100190

Size: 5 μ g/ 100 μ g/ 500 μ g

Product Information

	Product Name: Human TGF- β 1 protein		
REF	Catalog Number: PRP100190	LOT	Lot Number: Refer to product label
	Purity: > 95 % as determined by HPLC.		
	Storage: Store at -20C		Preparation method: CHO Stable Cells
	Shipping: The product is shipped at ambient temperature.		

Background: TGF- β 1 is a member of the transforming growth factor β (TGF- β) family. The transforming growth factor- β family of polypeptides are involved in the regulation of cellular processes, including cell division, differentiation, motility, adhesion and death. TGF- β 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- β 1 also increases the expression of certain cytokines in T cells and promotes their proliferation, particularly if the cells are immature. TGF- β 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- β 1 can inhibit their proliferation and prevent their production of reactive oxygen and nitrogen intermediates. However, as with other cell types, TGF- β 1 also has the opposite effect on cells of myeloid origin. TGF- β 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- β 1-mediated growth inhibition, autocrine TGF- β signaling can promote tumorigenesis. Elevated levels of TGF- β 1 are often observed in advanced carcinomas, and have been correlated with increased tumor invasiveness and disease progression.

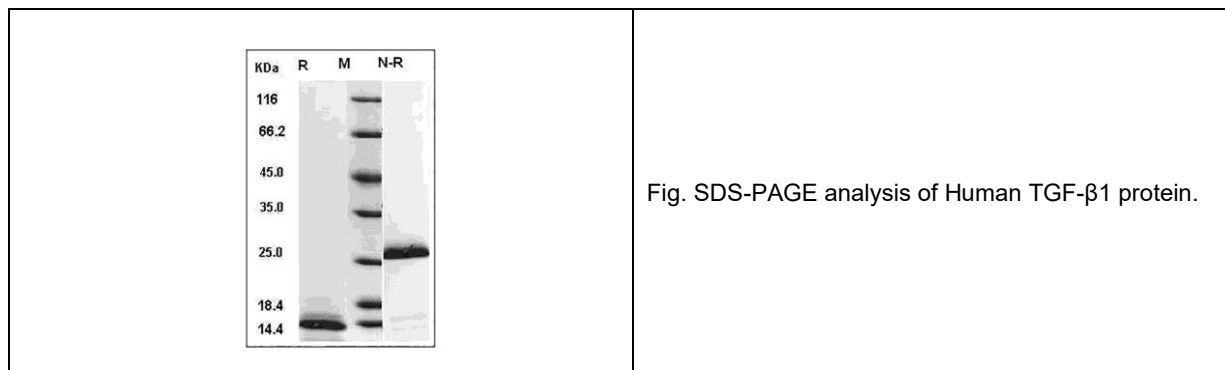
Sequence: Amino acid sequence derived from active form of human/rhesus/canine TGF β 1 (NP_000651.3) (Ala 279-Ser 390) was expressed and purified. Human, Rhesus and Canine TGF β 1 sequences are identical.

Protein length: The recombinant human/rhesus/canine TGF β 1 consists of 112 amino acids and has a calculated molecular mass of 12.8 kDa. It migrates as an approximately 13 & 26 kDa band in reduced and non-reduced SDS-PAGE respectively, corresponding to the monomer and homodimer.

Formulation: Lyophilized from sterile 100mM GLY, 10mM NaCl, pH 3.0.

Storage Instructions: Lyophilized Human TGF- β 1 protein product should be stored desiccated below -20°C. Upon reconstitution, the protein should be stored at 4°C between 2 -7 days and for future use below -20°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Usage notes: Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized Human TGF- β 1 protein with sterile ddH₂O or buffer supplied with the goods, not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.



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