


Rat TGF- β 1 protein

Cat #: PRP100618

Size: 5 μ g/ 100 μ g/1mg

Product Information

	Product Name: Rat TGF- β 1 protein		
REF	Catalog Number: PRP100618	LOT	Lot Number: Refer to product label
	Purity: > 90 % as determined by SDS-PAGE		
	Storage: Store at -20C		Preparation method: Human Cells
	Shipping: The product is shipped at ambient temperature.		

Background: TGF- β 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- 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-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.

Sequence: Amino acid sequence derived from rat TGFB1 (Ala279-Ser390) was expressed. Rat and Mouse mature TGFB1 sequences are identical.

Protein length: The recombinant rat TGFB1 comprises 112 amino acids and predicts a molecular mass of 12.8 kDa.

Formulation: Lyophilized from sterile PBS, pH 7.4.

Storage Instructions: Lyophilized Rat TGF- β 1 protein product should be stored desiccated below -18C. Upon reconstitution, the protein should be stored at 4C between 2-7 days and for future use below -18C. 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 Rat TGF- β 1 protein in sterile ddH₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

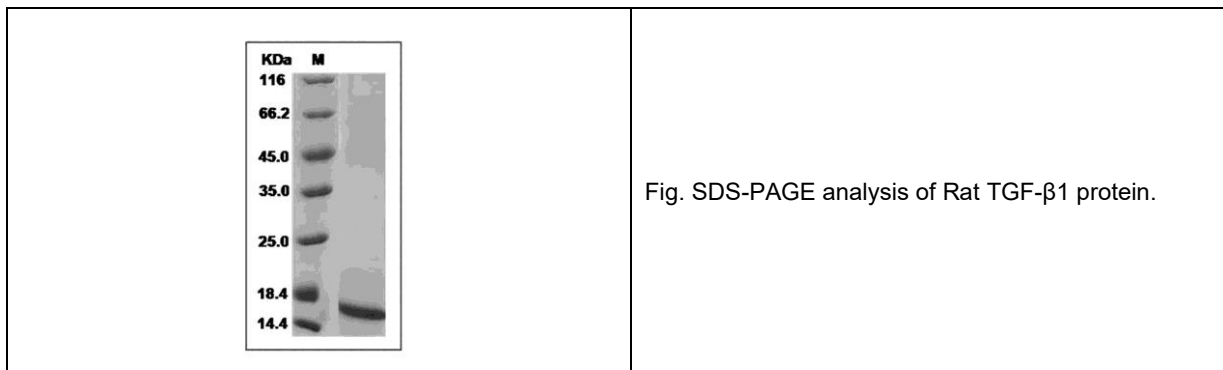


Fig. SDS-PAGE analysis of Rat TGF- β 1 protein.

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