

Datasheet for ABIN7321247 **TGFB1 Protein**



[Go to Product page](#)

Overview

Quantity:	100 µg
Target:	TGFB1
Origin:	Rat
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active

Product Details

Purpose:	Recombinant Rat TGFB1/TGF-beta 1 Protein (Active)
Sequence:	Ala279-Ser390
Characteristics:	A DNA sequence encoding the rat TGFB1 (P17246)(Ala279-Ser390) was expressed. Rat and Mouse mature TGFB1 sequences are identical.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin Level:	< 1.0 EU per µg of the protein as determined by the LAL method
Biological Activity Comment:	Measured by its ability to inhibit cell proliferation of Mv-1-lu mink lung epithelial cells. The ED50 for this effect is 0.2-0.8 ng/mL.

Target Details

Target:	TGFB1
Alternative Name:	TGFB1/TGF-beta 1 (TGFB1 Products)

Target Details

Background:	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. Synonym: TGF-beta 1,TGFB,TGFbeta
Molecular Weight:	12.8 kDa
UniProt:	P17246
Pathways:	EGFR Signaling Pathway , Dopaminergic Neurogenesis , Cellular Response to Molecule of Bacterial Origin , Glycosaminoglycan Metabolic Process , Regulation of Leukocyte Mediated Immunity , Regulation of Muscle Cell Differentiation , Positive Regulation of Immune Effector Process , Cell-Cell Junction Organization , Production of Molecular Mediator of Immune Response , Ribonucleoside Biosynthetic Process , Skeletal Muscle Fiber Development , Regulation of Carbohydrate Metabolic Process , Protein targeting to Nucleus , Autophagy , Cancer Immune Checkpoints

Application Details

Restrictions:	For Research Use only
---------------	-----------------------

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile PBS, pH 7.4
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.