

Datasheet for ABIN7566368

TGFB1 Protein (Fc Tag)



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Overview

Quantity:	100 µg
Target:	TGFB1
Origin:	Human, Mouse
Source:	CHO Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This TGFB1 protein is labelled with Fc Tag.

Product Details

Purpose:	TGFBeta1 (mutant) (human):Fc (human) (rec.)
Cross-Reactivity:	Human, Mouse
Characteristics:	The mutant human TGF-beta1 (including aa30-278 (Latency-Associated Peptide, LAP) and aa279-390 (TGF-beta1)) is fused to the N-terminus of the Fc region of human IgG4. Site-directed mutagenesis was used to change three cysteine codons into a serine codon that are located in the pro region of the TGF-beta precursor at amino acid positions 33, 223, and 225.
Purity:	>98 % (SDS-PAGE)
Sterility:	Sterile filtered
Endotoxin Level:	<0.06EU/µg protein (LAL test, Lonza).
Biological Activity Comment:	Shows the biological function of the TGFBeta1 moiety and exerts a prolonged circulating half-life caused by the modified Fc domain.

Target Details

Target:	TGFB1
Alternative Name:	TGFbeta1 (TGFB1 Products)
Background:	Transforming Growth Factor beta-1, TGFB1, TGFB TGF-beta1 (Transforming growth factor beta 1) is a polypeptide member of the transforming growth factor beta superfamily of cytokines. It is a secreted protein that performs many cellular functions, including the control of cell growth, cell proliferation, cell differentiation and apoptosis. In humans, TGF-beta1 is encoded by the TGFB1 gene. TGF-beta1 was first identified in human platelets as a protein with a molecular mass of 25 kDa with a potential role in wound healing. It was later characterized as a large protein precursor (containing 390 aa) that was proteolytically processed to produce a mature peptide of 112 aa. TGF-beta1 plays an important role in controlling the immune system, and shows different activities on different types of cell, or cells at different developmental stages. Most immune cells (or leukocytes) secrete TGF-beta1. Normally, TGF-beta1 is secreted as a complex with Latency-Associated Peptide (LAP) that is inactive. Removal of LAP activates TGF-beta1 that is cleared quickly from the circulation. This specific mutant protein containing the LAP+TGF-beta1 domains including the indicated three mutated cysteines, allows the protein to be active and to have long lasting biological activity with increased stability and half-life time.
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
Buffer:	Lyophilized from 0.2µm-filtered solution in PBS.
Handling Advice:	Avoid freeze/thaw cycles. Centrifuge lyophilized vial before opening and reconstitution.
Storage:	4 °C, -20 °C

Handling

Storage Comment:

Short Term Storage: +4°C

Long Term Storage: -20°C

Use & Stability: Stable for at least 1 year after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C.