

### Datasheet for ABIN6253307

# TGFB1 Protein (C33S, C223S, C225S) (Fc Tag)



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Quantity:	100 μg
Target:	TGFB1
Protein Characteristics:	C223S, C225S, C33S
Origin:	Human, Mouse
Source:	CHO Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TGFB1 protein is labelled with Fc Tag.

#### **Product Details**

Purpose:	TGFbeta1 (mutant) (human):Fc (human) (rec.)
Specificity:	The extracellular domain of a mutant human TGFbeta1 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.
Characteristics:	Protein. The extracellular domain of a mutant human TGFbeta1 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. Source: CHO cells. Endotoxin content: <0.06EU/µg
	protein (LAL test, Lonza). Lyophilized from 0.2µm-filtered solution in PBS. Binds human
	TGFbeta. Shown to cross-react with mouse TGFbeta (see lit. reference 1). Purity: >98 % (SDS-
	PAGE). 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 perform

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 kaD 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.

Purity:

>98 % (SDS-PAGE)

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 halflife caused by the modified Fc domain.

#### Target Details

Alternative Name:

TGFbeta1 (TGFB1 Products)

TGFB1

Background:

Alternate Names/Synonyms: Transforming Growth Factor beta-1, TGFB1, TGFB
Product Description: 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 kaD 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.

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
Concentration:	Lot specific
Buffer:	Lyophilized from 0.2µm-filtered solution in PBS.
Handling Advice:	Avoid freeze/thaw cycles.
Storage:	4 °C,-20 °C
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  $^{\circ}\text{C}.$  Working aliquots

are stable for up to 3 months when stored at -20°C.