

## Anti-TGF beta 1 Antibody (4C697)

## Product Details

Ig Type:	Mouse IgG1
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	4C697
Purification:	Protein A

## Applications

Verified Activity:	Immunofluorescence staining of TGFβ1 in HeLa cells. Cells were fixed with 4% PFA, permeabilized with 0.1% Triton X-100 in PBS, blocked with 10% serum, and incubated with mouse anti-Human TGFβ1 monoclonal antibody (dilution ratio 1:60) at 4°C overnight. Then cells were stained with the Alexa Fluor®488-conjugated Goat Anti-mouse IgG secondary antibody (green) and counterstained with DAPI (blue). Positive staining was localized to Cytoplasm.
Application:	ICC/IF
Recommended	ICC-IF: 1:20-1:100

## Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

## Antigen Details

Immunogen:	Recombinant Protein: Human TGF beta 1 Protein (TMPY-01133)
Antigen Species:	Human
Synonyms:	transforming growth factor, β1;transforming growth factor, beta 1;TGF β1
Biology Area:	Early Mesodermal Lineage Markers, Cancer Drug Targets

## Research 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

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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. Cancer Immunotherapy Immune Checkpoint Immunotherapy Targeted Therapy

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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