



# TGFβ1 Polyclonal Antibody

<b>Catalog No</b>	YP-Ab-15967
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Gene Name</b>	TGFB1 TGFB
<b>Protein Name</b>	Transforming growth factor beta-1, TGF-β1, TGF b
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human TGF beta1. AA range:336-385
<b>Specificity</b>	TGFβ1 Polyclonal Antibody detects endogenous levels of TGFβ1 protein.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. IF 1:100-300 Not yet tested in other applications.
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	TGFB1; TGFB; Transforming growth factor beta-1; TGF-beta-1
<b>Observed Band</b>	44-55kD
<b>Cell Pathway</b>	[Latency-associated peptide]: Secreted, extracellular space, extracellular matrix . ; [Transforming growth factor beta-1]: Secreted .
<b>Tissue Specificity</b>	Highly expressed in bone (PubMed:11746498, PubMed:17827158). Abundantly expressed in articular cartilage and chondrocytes and is increased in osteoarthritis (OA) (PubMed:11746498, PubMed:17827158). Colocalizes with ASPN in chondrocytes within OA lesions of articular cartilage (PubMed:17827158).
<b>Function</b>	disease:Defects in TGFB1 are the cause of Camurati-Engelmann disease (CED) [MIM:131300]; also known as progressive diaphyseal dysplasia 1 (DPD1). CED is an autosomal dominant disorder characterized by hyperostosis and sclerosis of the diaphyses of long bones. The disease typically presents in early childhood with pain, muscular weakness and waddling gait, and in some cases other features such as exophthalmos, facial paralysis, hearing difficulties and loss of vision.,function:Multifunctional protein that controls proliferation, differentiation and other functions in many cell types. Many cells synthesize TGFB1 and have specific receptors for it. It positively and negatively regulates many other growth factors. It plays an important role in bone remodeling as it is a potent stimulator of osteoblastic bone formation, causing chemotaxis, proliferation and differentiation



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**Background**

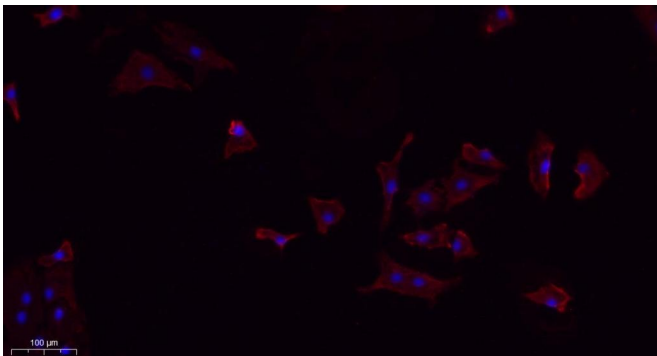
This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate a latency-associated peptide (LAP) and a mature peptide, and is found in either a latent form composed of a mature peptide homodimer, a LAP homodimer, and a latent TGF-beta binding protein, or in an active form consisting solely of the mature peptide homodimer. The mature peptide may also form heterodimers with other TGFB family members. This encoded protein regulates cell proliferation, differentiation and growth, and can modulate expression and activation of other growth factors including interferon gamma and tumor necrosis factor alpha. This gene i

**matters needing attention**

Avoid repeated freezing and thawing!

**Usage suggestions**

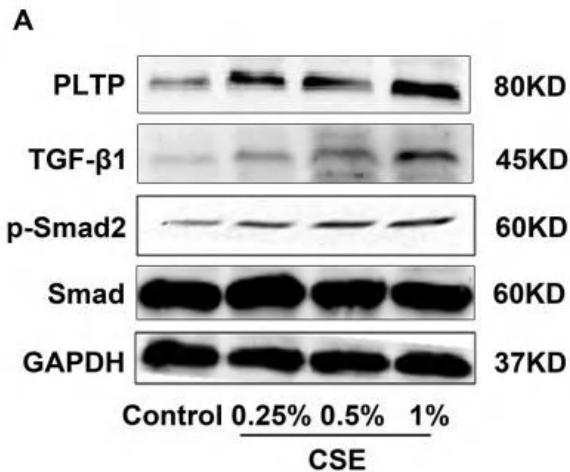
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

**Products Images**


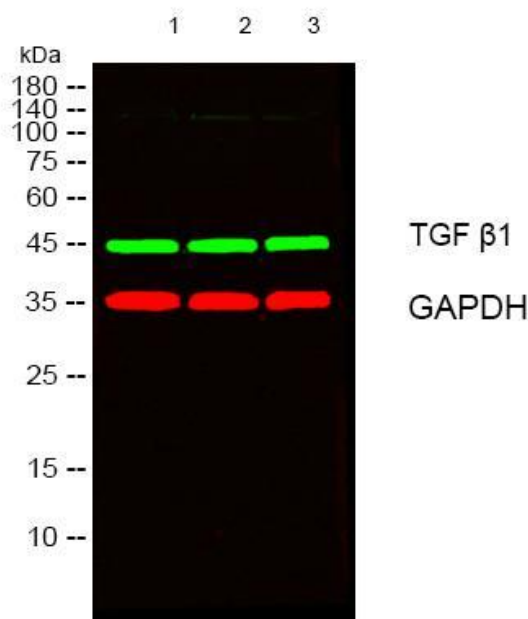
Immunofluorescence analysis of A549. 1,primary Antibody(red) was diluted at 1:200(4°C overnight). 2, Goat Anti Rabbit IgG (H&L) - Alexa Fluor 594 Secondary antibody was diluted at 1:1000(room temperature, 50min).3, Picture B: DAPI(blue) 10min.



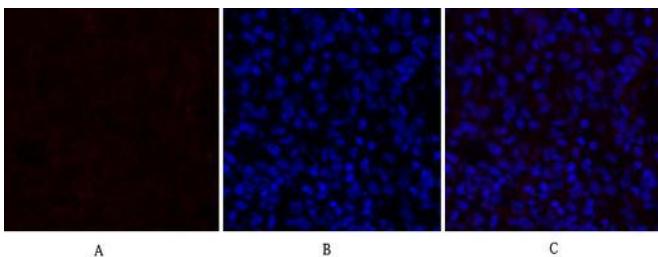
Zhang, Sen, et al. "Nicousamide protects kidney podocyte by inhibiting the TGFβ receptor II phosphorylation and AGE-RAGE signaling." American journal of translational research 9.1 (2017): 115.



Chen, Hong, et al. "Cigarette smoke extract induces the epithelial-to-mesenchymal transition via the PLTP/TGF-β1/Smad2 pathway in RLE-6TN cells." *Toxicology Research* 6.2 (2017): 215-222.



Western blot analysis of lysates from 1) Mouse Brain, 2) HT29, 3) HepG2 cells, (Green) primary antibody was diluted at 1:1000, 4° over night, secondary antibody (cat:RS23920) was diluted at 1:10000, 37° 1hour. (Red) GAPDH Monoclonal Antibody(2B8) (cat:YM3029) antibody was diluted at 1:5000 as loading control, 4° over night, secondary antibody (cat:RS23710) was diluted at 1:10000, 37° 1hour.



Immunofluorescence analysis of rat-lung tissue. 1, TGF β1 Polyclonal Antibody (red) was diluted at 1:200 (4° C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B