

TGFβ1 Polyclonal Antibody

Catalog No :	YT4632
Reactivity :	Human;Mouse;Rat
Applications :	WB;IHC;IF;ELISA
Target :	TGFB1
Fields :	>>MAPK signaling pathway;>>Cytokine-cytokine receptor interaction;>>FoxO signaling pathway;>>Cell cycle;>>Cellular senescence;>>TGF-beta signaling pathway;>>Osteoclast differentiation;>>Hippo signaling pathway;>>Th17 cell differentiation;>>Intestinal immune network for IgA production;>>Relaxin signaling pathway;>>Non-alcoholic fatty liver disease;>>AGE-RAGE signaling pathway in diabetic complications;>>Leishmaniasis;>>Chagas disease;>>Malaria;>>Toxoplasmosis;>>Amoebiasis;>>Tuberculosis;>>Hepatitis B;>>Human T-cell leukemia virus 1 infection;>>Pathways in cancer;>>Proteoglycans in cancer;>>Colorectal cancer;>>Renal cell carcinoma;>>Pancreatic cancer;>>Chronic myeloid leukemia;>>Hepatocellular carcinoma;>>Gastric cancer;>>Inflammatory bowel disease;>>Rheumatoid arthritis;>>Hypertrophic cardiomyopathy;>>Dilated cardiomyopathy;>>Diabetic cardiomyopathy
Gene Name :	TGFB1 TGFB
Protein Name :	Transforming growth factor beta-1, TGF-β1, TGF b
Human Gene Id :	7040
Human Swiss Prot No :	P01137
Mouse Gene Id :	21803
Mouse Swiss Prot No :	P04202
Rat Gene Id :	59086
Rat Swiss Prot No :	P17246
Immunogen :	The antiserum was produced against synthesized peptide derived from human

TGF beta1. AA range:336-385

Specificity : TGFβ1 Polyclonal Antibody detects endogenous levels of TGFβ1 protein.

Formulation : Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source : Polyclonal, Rabbit,IgG

Dilution : WB 1:500 - 1:2000. IHC: 1:100-300 ELISA: 1:20000. IF 1:100-300 Not yet tested in other applications.

Purification : The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 44-55kD

Cell Pathway : MAPK_ERK_Growth;MAPK_G_Protein;Cytokine-cytokine receptor interaction;Cell_Cycle_G1S;Cell_Cycle_G2M_DNA;TGF-beta;Intestinal immune network for IgA production;Pathways in cancer;Colorectal cancer;Renal

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

Function : 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 in committed osteob

Subcellular Location :

[Latency-associated peptide]: Secreted, extracellular space, extracellular matrix .; [Transforming growth factor beta-1]: Secreted .

Expression :

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).

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