TGF β1 (PT2173) Mouse mAb

CatalogNo: YM4305

Key Features

Host Species
- Mouse

Reactivity
- Human,Mouse,Rat,

Applications
- IHC,WB,IF,ELISA

MW
- 48kD (Calculated)

44kD (Observed)

Isotype
- IgG2b,Kappa

Recommended Dilution Ratios

IHC 1:200-1000
WB 1:500-2000
IF 1:100-500
ELISA 1:1000-5000

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Basic Information

Clonality	Monoclonal
Clone Number	PT2173

Immunogen Information

Immunogen	Synthesized peptide derived from human TGF β1 AA range: 300-390
Specificity	This antibody detects endogenous levels of TGF β1 protein.

Target Information

Gene name TGFB1 TGFB

Protein Name Transforming growth factor beta-1 (TGF-beta-1) [Cleaved into: Latency-associated peptide (LAP)]

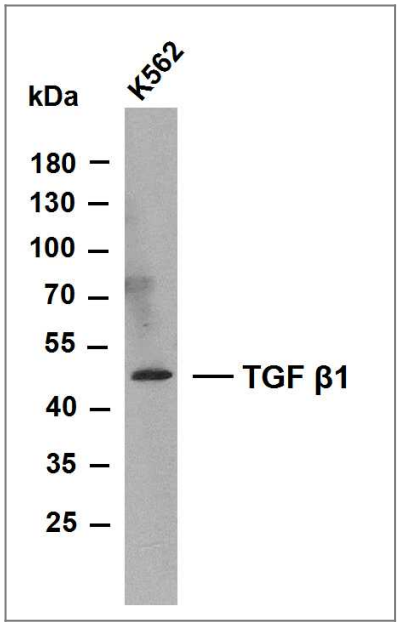
Organism	Gene ID	UniProt ID
Human	7040;	P01137;
Mouse	21803;	P04202;
Rat	59086;	P17246;

Cellular Localization Cytoplasmic

Tissue specificity 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).

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 osteoblasts.,induction:Activated in vitro at pH below 3.5 and over 12.5.,online information:TGF beta-1 entry,polymorphism:In post-menopausal Japanese women, the frequency of Leu-10 is higher in subjects with osteoporosis than in controls.,PTM:Glycosylated.,PTM:The precursor is cleaved into mature TGF-beta-1 and LAP, which remains non-covalently linked to mature TGF-beta-1 rendering it inactive.,similarity:Belongs to the TGF-beta family.,subunit:The inactive form consists of a TGFB1 homodimer non-covalently linked to a latency-associated peptide (LAP) homodimer. The inactive complex can contain a latent TGFB1-binding protein. The active form is a homodimer of mature TGFB1; disulfide-linked. Heterodimers of TGFB1/TGFB2 have been found in bone. Interacts with CD109 and DPT.,tissue specificity:Highly expressed in bone.,

Validation Data



Whole cell lysates of K562 were separated by 10% SDS-PAGE, and the membrane was blotted with anti-TGF β1(PT2173) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: K562

Contact information

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Please scan the QR code to access additional product information:
TGF β1 (PT2173) Mouse mAb