

## TGF $\beta$ 1 (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  $\beta$ 1 AA range: 300-390

**Specificity** This antibody detects endogenous levels of TGF  $\beta$ 1 protein.

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## | 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	<a href="#">7040;</a>	<a href="#">P01137;</a>
Mouse	<a href="#">21803;</a>	<a href="#">P04202;</a>
Rat	<a href="#">59086;</a>	<a href="#">P17246;</a>

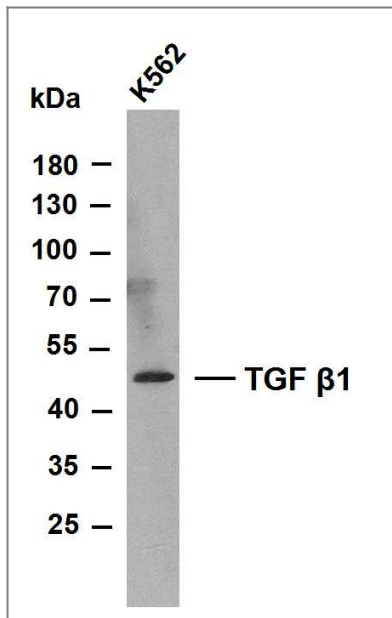
**Cellular Localization** Cytoplasmic

**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.,

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## | Validation Data



Whole cell lysates of K562 were separated by 10% SDS-PAGE, and the membrane was blotted with anti-TGF  $\beta$ 1(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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**TGF  $\beta$ 1 (PT2173)**  
**Mouse mAb**

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