

## TGF $\beta$ 1/3 (PT0402R) PT® Rabbit mAb

<b>Catalog No :</b>	YM8247
<b>Reactivity :</b>	Human; Mouse; Rat;
<b>Applications :</b>	WB;IF;IP;ELISA
<b>Target :</b>	TGFB1\TGFB3
<b>Fields :</b>	>>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
<b>Gene Name :</b>	TGFB1 TGFB3
<b>Protein Name :</b>	Transforming growth factor beta-1 proprotein;Latency-associated peptide(LAP);Transforming growth factor beta-1 (TGF-beta-1);Transforming growth factor beta-3 proprotein;Transforming growth factor beta-
<b>Human Gene Id :</b>	7040;7043
<b>Human Swiss Prot No :</b>	P01137;P10600
<b>Mouse Gene Id :</b>	21803
<b>Mouse Swiss Prot No :</b>	P04202;P17125
<b>Rat Gene Id :</b>	59086;25717
<b>Rat Swiss Prot No :</b>	P17246;Q07258

<b>Specificity :</b>	endogenous
<b>Formulation :</b>	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
<b>Source :</b>	Monoclonal, rabbit, IgG, Kappa
<b>Dilution :</b>	IHC 1:1000-1:4000;WB 1:500-1:2000;IF 1:200-1:1000;ELISA 1:5000-1:20000;IP 1:50-1:200;
<b>Purification :</b>	Protein A
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Molecularweight :</b>	44kD
<b>Observed Band :</b>	44kD,13kD
<b>Cell Pathway :</b>	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
<b>Background :</b>	<p>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 TGF-beta family members. This protein is involved in embryogenesis and cell differentiation, and may play a role in wound healing. Mutations in this gene are a cause of aortic aneurysms and dissections, as well as familial arrhythmogenic</p>
<b>Function :</b>	<p>TGF-beta-1 proprotein: Precursor of the Latency-associated peptide (LAP) and TGF-beta-1 chains, which constitute the regulatory and active subunit of TGF-beta-1, respectively.; [Latency-associated peptide]: Required to maintain the TGF-beta-1 chain in a latent state during storage in extracellular matrix . Associates non-covalently with TGF-beta-1 and regulates its activation via interaction with 'milieu molecules', such as LTBP1, LRRC32/GARP and LRRC33/NRROS, that control activation of TGF-beta-1 . Interaction with LRRC33/NRROS regulates activation of TGF-beta-1 in macrophages and microglia (Probable). Interaction with LRRC32/GARP controls activation of TGF-beta-1 on the surface of activated regulatory T-cells (Tregs) . Interaction with integrins (ITGAV:ITGB6 or ITGAV:ITGB8) results in distortion of the Latency-associated peptide chain and subsequent release of the active TGF-beta-1;[TG</p>

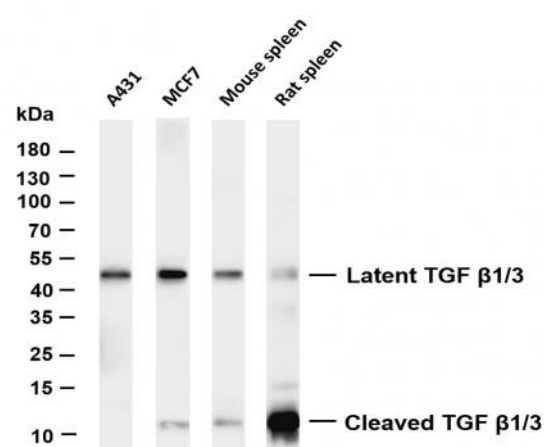
**Subcellular Location :**

Secreted

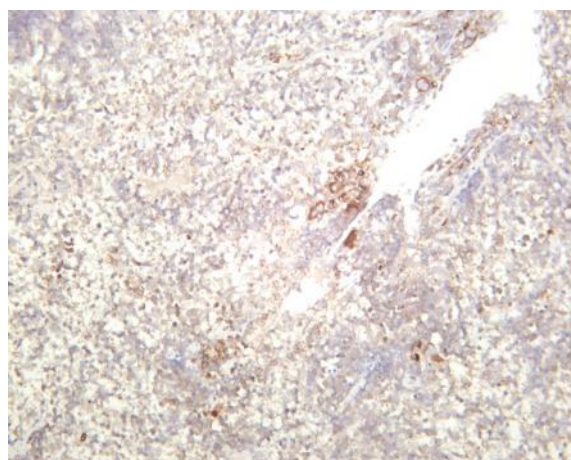
**Expression :**

TGF  $\beta$ 1: 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).

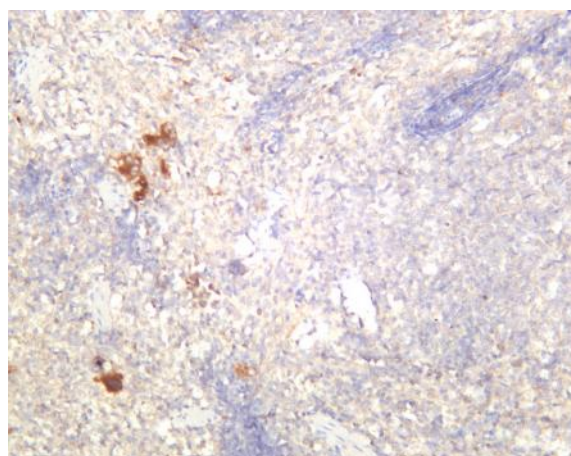
## Products Images



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-TGF  $\beta$ 1/3 (PT0402R) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: A431 Lane 2: MCF7 Lane 3: Mouse spleen Lane 4: Rat spleen Predicted band size: 44kDa Observed band size: 44,13kDa



Mouse spleen was stained with anti-TGF  $\beta$ 1/3 (PT0402R) rabbit antibody



Rat spleen was stained with anti-TGF  $\beta$ 1/3 (PT0402R) rabbit antibody