

**Smad3 mouse Monoclonal Antibody(4C9)**

<b>Catalog No :</b>	YM3666
<b>Reactivity :</b>	Human;Rat;Mouse
<b>Applications :</b>	WB;IF;ELISA
<b>Target :</b>	Smad3
<b>Fields :</b>	>>FoxO signaling pathway;>>Cell cycle;>>Endocytosis;>>Cellular senescence;>>Wnt signaling pathway;>>TGF-beta signaling pathway;>>Apelin signaling pathway;>>Hippo signaling pathway;>>Adherens junction;>>Signaling pathways regulating pluripotency of stem cells;>>Th17 cell differentiation;>>AGE-RAGE signaling pathway in diabetic complications;>>Hepatitis B;>>Human T-cell leukemia virus 1 infection;>>Pathways in cancer;>>Colorectal cancer;>>Pancreatic cancer;>>Chronic myeloid leukemia;>>Hepatocellular carcinoma;>>Gastric cancer;>>Inflammatory bowel disease;>>Diabetic cardiomyopathy
<b>Gene Name :</b>	SMAD3
<b>Protein Name :</b>	SMAD3
<b>Human Gene Id :</b>	4088
<b>Human Swiss Prot No :</b>	P84022
<b>Mouse Swiss Prot No :</b>	Q8BUN5
<b>Rat Swiss Prot No :</b>	P84025
<b>Immunogen :</b>	Synthetic Peptide of Smad3 at AA range of 350-430
<b>Specificity :</b>	Smad3 protein detects endogenous levels of SMAD3
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Monoclonal, Mouse
	WB 1:1000-2000. IF 1:50-200

**Purification :** The antibody was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen.

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**Concentration :** 1 mg/ml

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

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**Observed Band :** 52kD

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**Cell Pathway :** Cell\_Cycle\_G1S;Cell\_Cycle\_G2M\_DNA;WNT;WNT-T CELLTGF-beta;Adherens\_Junction;Pathways in cancer;Colorectal cancer;Pancreatic cancer;Chronic myeloid leukemia;

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**Background :** The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the Drosophila gene *mothers against decapentaplegic* (Mad) and the C. elegans gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein functions as a transcriptional modulator activated by transforming growth factor-beta and is thought to play a role in the regulation of carcinogenesis. [provided by RefSeq, Apr 2009],

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**Function :** disease:Defects in SMAD3 may be a cause of colorectal cancer (CRC) [MIM:114500].,domain:The MH2 domain is sufficient to carry protein nuclear export.,function:Transcriptional modulator activated by TGF-beta (transforming growth factor) and activin type 1 receptor kinase. SMAD3 is a receptor-regulated SMAD (R-SMAD).,PTM:Phosphorylated on serine by TGF-beta and activin type 1 receptor kinases.,similarity:Belongs to the dwarfin/SMAD family.,similarity:Contains 1 MH1 (MAD homology 1) domain.,similarity:Contains 1 MH2 (MAD homology 2) domain.,subcellular location:In the cytoplasm in the absence of ligand. Migration to the nucleus when complexed with Smad4.,subunit:Interacts with HGS. Interacts with NEDD4L in response to TGF-beta. Interacts with TTRAP (By similarity). Interacts with SARA (SMAD anchor for receptor activation); form trimers with another SMAD3 and the co-SMAD SMAD4. Interacts wit

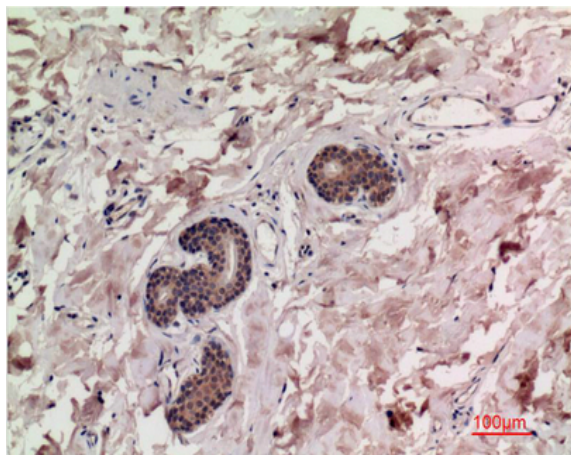
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**Subcellular Location :** Cytoplasm . Nucleus . Cytoplasmic and nuclear in the absence of TGF-beta. On TGF-beta stimulation, migrates to the nucleus when complexed with SMAD4 (PubMed:15799969, PubMed:21145499). Through the action of the phosphatase PPM1A, released from the SMAD2/SMAD4 complex, and exported out of the nucleus by interaction with RANBP1 (PubMed:16751101, PubMed:19289081). Co-localizes with LEMD3 at the nucleus inner membrane (PubMed:15601644). MAPK-mediated phosphorylation appears to have no effect on nuclear import (PubMed:19218245). PDPK1 prevents its nuclear translocation in response to TGF-beta (PubMed:17327236). Localized mainly to the nucleus in the early stages of embryo development with expression becoming evident in the cytoplasm of the inner cell mass at the blastocyst stage (By similarity)

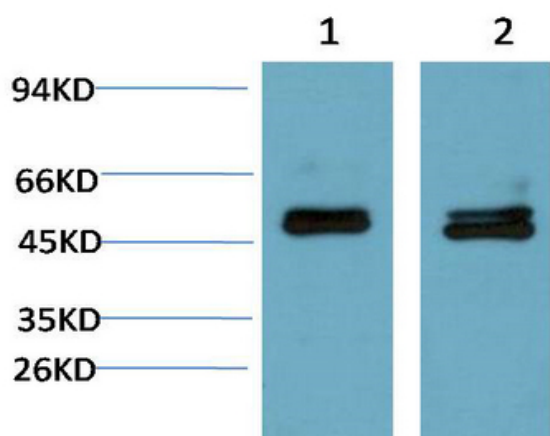
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**Expression :** Brain, Colon carcinoma, Esophagus tumor, Pancreas, Placenta, Spleen, Umbilical cord blood

## Products Images



Immunohistochemical analysis of paraffin-embedded Human Breast Carcinoma Tissue using Smad3 Mouse mAb diluted at 1:200.



Western blot analysis of 1) Mouse Brain Tissue Lysate, 2) Rat Brain Tissue Lysate using Smad3 Mouse mAb diluted at 1:2000.