

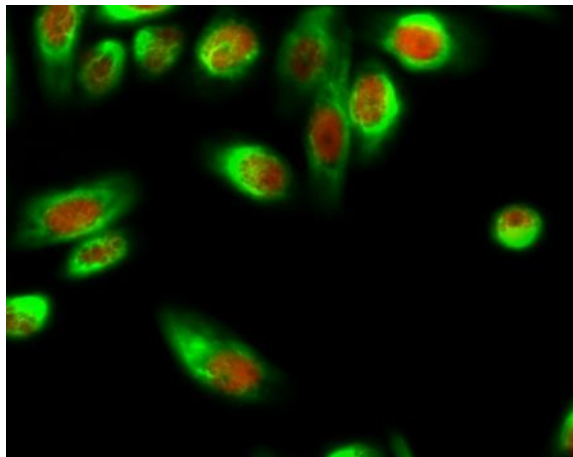
## Smad4 Polyclonal Antibody

<b>Catalog No :</b>	YT4337
<b>Reactivity :</b>	Human;Mouse;Rat;Monkey
<b>Applications :</b>	WB;IHC;IF;ELISA
<b>Target :</b>	Smad4
<b>Fields :</b>	>>FoxO signaling pathway;>>Cell cycle;>>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
<b>Gene Name :</b>	SMAD4
<b>Protein Name :</b>	Mothers against decapentaplegic homolog 4
<b>Human Gene Id :</b>	4089
<b>Human Swiss Prot No :</b>	Q13485
<b>Mouse Gene Id :</b>	17128
<b>Mouse Swiss Prot No :</b>	P97471
<b>Rat Gene Id :</b>	50554
<b>Rat Swiss Prot No :</b>	O70437
<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human Smad4. AA range:21-70
<b>Specificity :</b>	Smad4 Polyclonal Antibody detects endogenous levels of Smad4 protein.  Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

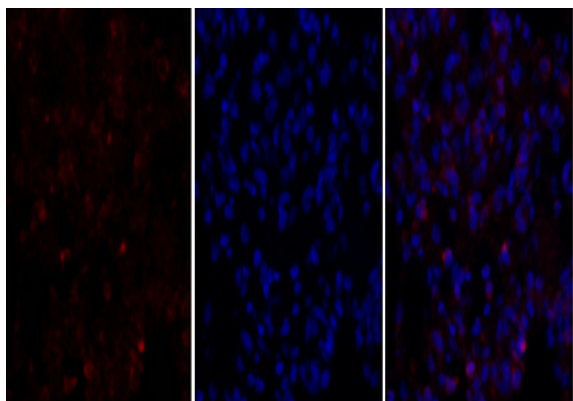
<b>Formulation :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications.
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Concentration :</b>	1 mg/ml
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Observed Band :</b>	60kD
<b>Cell Pathway :</b>	Cell_Cycle_G1S;Cell_Cycle_G2M_DNA;WNT;WNT-T CELLTGF-beta;Adherens_Junction;Pathways in cancer;Colorectal cancer;Pancreatic cancer;Chronic myeloid leukemia;
<b>Background :</b>	This gene encodes a member of the Smad family of signal transduction proteins. Smad proteins are phosphorylated and activated by transmembrane serine-threonine receptor kinases in response to TGF-beta signaling. The product of this gene forms homomeric complexes and heteromeric complexes with other activated Smad proteins, which then accumulate in the nucleus and regulate the transcription of target genes. This protein binds to DNA and recognizes an 8-bp palindromic sequence (GTCTAGAC) called the Smad-binding element (SBE). The Smad proteins are subject to complex regulation by post-translational modifications. Mutations or deletions in this gene have been shown to result in pancreatic cancer, juvenile polyposis syndrome, and hereditary hemorrhagic telangiectasia syndrome. [provided by RefSeq, Oct 2009],
<b>Function :</b>	disease:Defects in SMAD4 are a cause of juvenile polyposis syndrome (JPS) [MIM:174900]; also known as juvenile intestinal polyposis (JIP). JPS is an autosomal dominant gastrointestinal hamartomatous polyposis syndrome in which patients are at risk for developing gastrointestinal cancers. The lesions are typified by a smooth histological appearance, predominant stroma, cystic spaces and lack of a smooth muscle core. Multiple juvenile polyps usually occur in a number of Mendelian disorders. Sometimes, these polyps occur without associated features as in JPS; here, polyps tend to occur in the large bowel and are associated with an increased risk of colon and other gastrointestinal cancers.,disease:Defects in SMAD4 are a cause of juvenile polyposis/hereditary hemorrhagic telangiectasia syndrome (JP/HHT) [MIM:175050]. JP/HHT syndrome phenotype consists of the coexistence of juvenile polyposis
<b>Subcellular Location :</b>	Cytoplasm . Nucleus . Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with R-SMAD (PubMed:15799969). PDPK1 prevents its nuclear translocation in response to TGF-beta (PubMed:17327236). .

**Expression :** Fetal brain,Muscle,Placenta,

## Products Images



Immunofluorescence analysis of HeLa cell. 1, Smad4 Polyclonal Antibody (red) was diluted at 1:200 (4 ° overnight). GAPDH Monoclonal Antibody (2B8) (green) was diluted at 1:200 (4 ° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog: RS3611 was diluted at 1:1000 (room temperature, 50 min). Goat Anti Mouse Alexa Fluor 488 Catalog: RS3208 was diluted at 1:1000 (room temperature, 50 min).

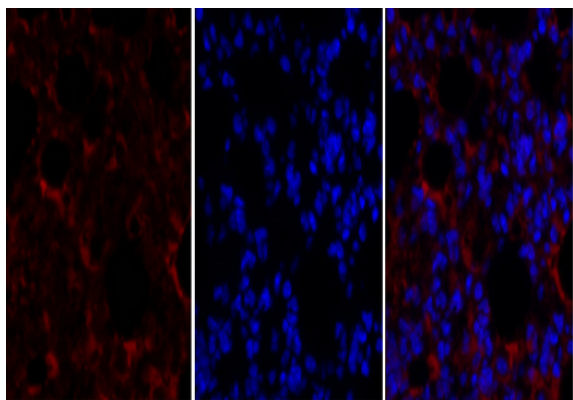


A

B

C

Immunofluorescence analysis of rat-lung tissue. 1, Smad4 Polyclonal Antibody (red) was diluted at 1:200 (4 ° C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50 min). 3, Picture B: DAPI (blue) 10 min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B

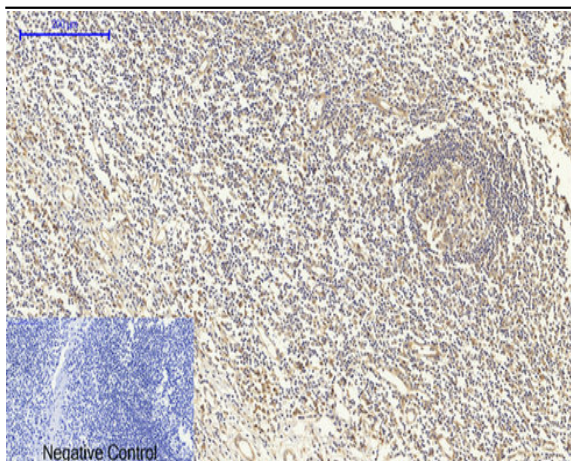


A

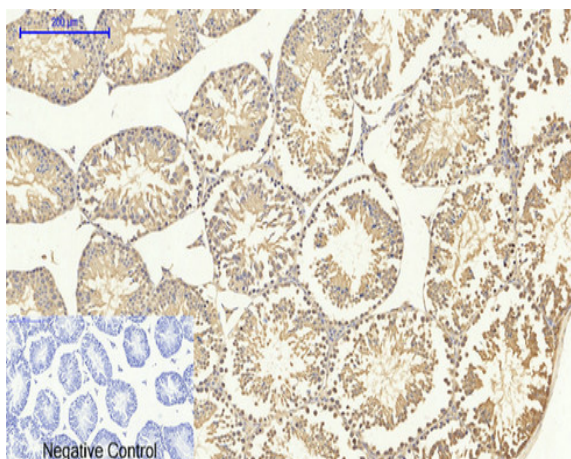
B

C

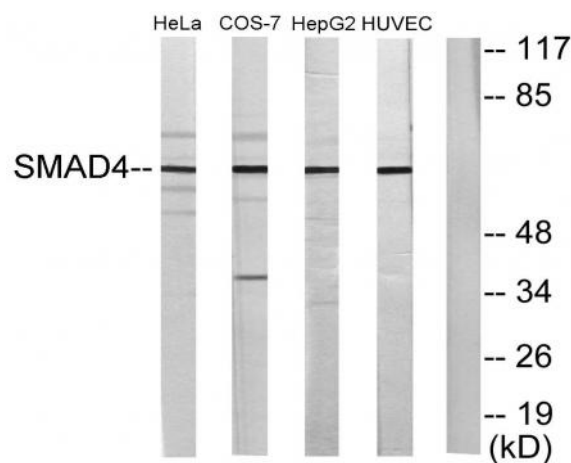
Immunofluorescence analysis of mouse-lung tissue. 1, Smad4 Polyclonal Antibody (red) was diluted at 1:200 (4 ° C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50 min). 3, Picture B: DAPI (blue) 10 min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



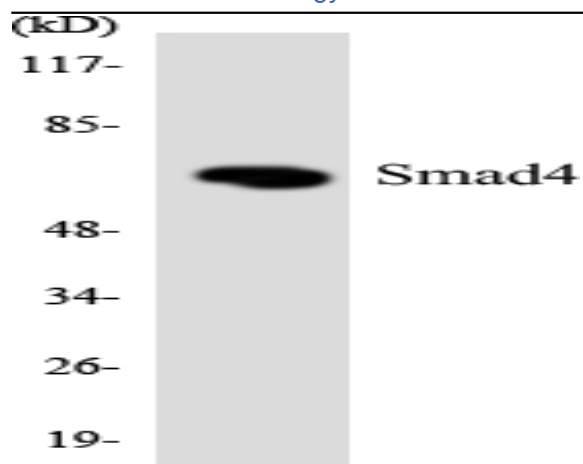
Immunohistochemical analysis of paraffin-embedded Human-Tonsil tissue. 1, Smad4 Polyclonal Antibody was diluted at 1:200(4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98 °C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse-testis tissue. 1, Smad4 Polyclonal Antibody was diluted at 1:200(4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98 °C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Western blot analysis of lysates from HeLa, COS7, HepG2, and HUVEC cells, using Smad4 Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from HT-29 cells using Smad4 antibody.