Product Datasheet

SMAD5 Antibody

Catalog No: #32514

Package Size: #32514-1 50ul #32514-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

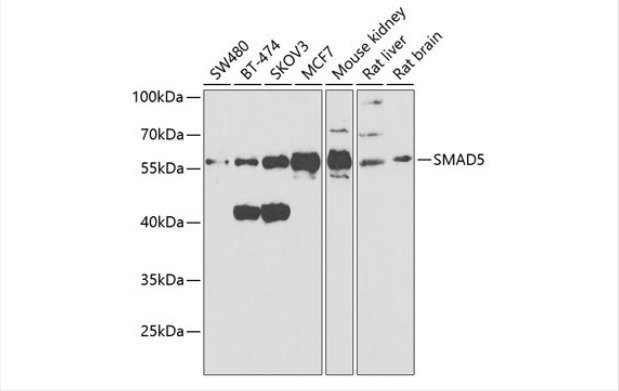
Product Name	SMAD5 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB IHC
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of total SMAD5 protein.
Immunogen Type	Peptide
Immunogen Description	A synthetic peptide of human SMAD5.
Target Name	SMAD5
Other Names	DKFZp781C1895; DKFZp781O1323; Dwfc; JV5-1; MADH5
Accession No.	Swiss-Prot:Q99717NCBI Gene ID:4090
Uniprot	Q99717
GeneID	4090;
SDS-PAGE MW	52KD
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

Application Details

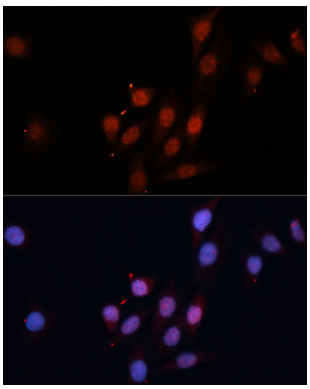
Western blotting: 1:500 - 1:2000

Immunohistochemistry: 1:50 - 1:100

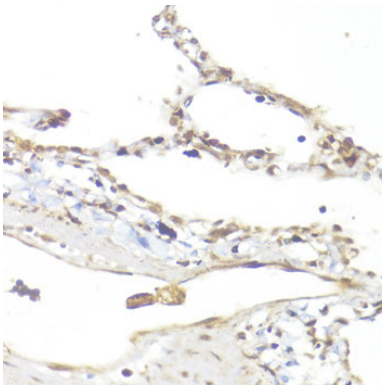
Images



Western blot analysis of extracts of various cell lines, using SMAD5 antibody at 1:1000 dilution.



Immunofluorescence analysis of HeLa cells using SMAD5 Polyclonal antibody at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.



Immunohistochemistry of paraffin-embedded human lung using Smad5 antibody at dilution of 1:100 (40x lens).

Background

Bone morphogenetic proteins (BMPs) constitute a large family of signaling molecules that regulate a wide range of critical processes including morphogenesis, cell-fate determination, proliferation, differentiation, and apoptosis (1,2). BMP receptors are members of the TGF-β family of Ser/Thr kinase receptors. Ligand binding induces multimerization, autophosphorylation, and activation of these receptors (3-5). They subsequently phosphorylate Smad1 at Ser463 and Ser465 in the carboxy-terminal motif SSXS, as well as Smad5 and Smad8 at their corresponding sites. These phosphorylated Smads dimerize with the coactivating Smad4 and translocate to the nucleus, where they stimulate transcription of target genes (5).MAP kinases and CDKs 8 and 9 phosphorylate residues in the linker region of Smad1, including Ser206. The phosphorylation of Ser206 recruits Smurf1 to the linker region and leads to the degradation of Smad1 (6). Phosphorylation of this site also promotes Smad1 transcriptional action by recruiting YAP to the linker region (7).

Note: This product is for in vitro research use only