Product Datasheet

SMAD1 Antibody

Catalog No: #32160

Package Size: #32160-1 50ul #32160-2 100ul

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

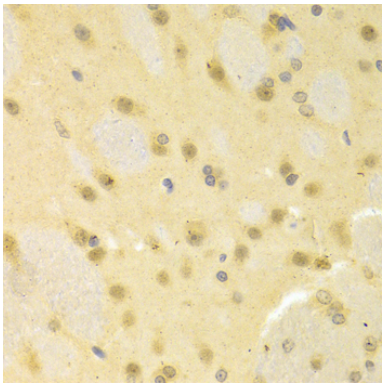
Description

Product Name	SMAD1 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB,IHC,IF
Species Reactivity	Human,Mouse,Rat
Specificity	The antibody detects endogenous level of total SMAD1 protein.
Immunogen Type	Recombinant Protein
Immunogen Description	Recombinant protein of human SMAD1.
Target Name	SMAD1
Other Names	SMAD1; BSP1; JV4-1; JV41; MADH1
Accession No.	Swiss-Prot:Q15797NCBI Gene ID:4086
Uniprot	Q15797
GeneID	4086;
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

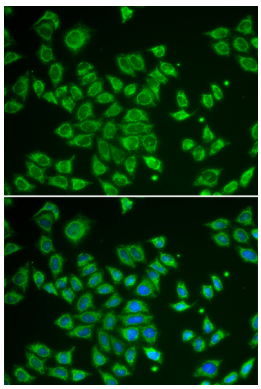
Application Details

WB□1:500 - 1:2000IHC□1:50 - 1:200IF□1:50 - 1:200

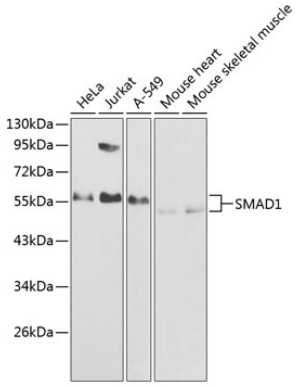
Images



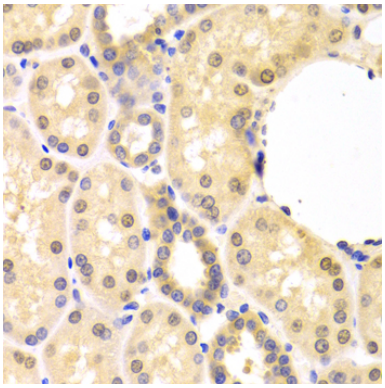
Immunohistochemistry of paraffin-embedded rat brain using SMAD1 at dilution of 1:100 (40x lens).



Immunofluorescence analysis of HeLa cells using SMAD1 .
Blue: DAPI for nuclear staining.



Western blot analysis of extracts of various cell lines, using SMAD1 at 1:1000 dilution.



Immunohistochemistry of paraffin-embedded human kidney using SMAD1 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