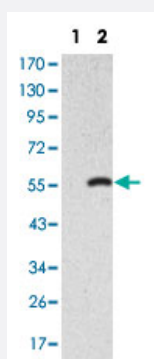


SMAD2 monoclonal antibody, clone 5G7

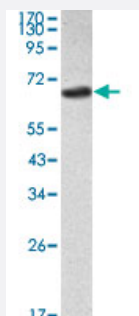
Catalog # MAB10391 Size 100 uL

Applications



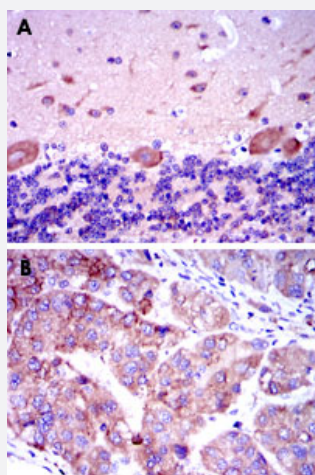
Western Blot (Transfected lysate)

Western blot analysis using SMAD2 monoclonal antibody, clone 5G7 (Cat # MAB10391) against HEK293 (1) and SMAD2-hlgGfc transfected HEK293 (2) cell lysate.



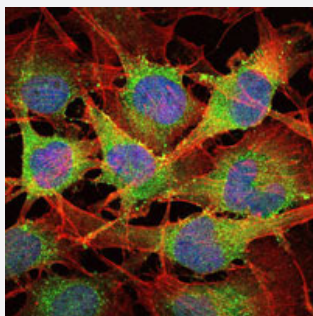
Western Blot (Recombinant protein)

Western blot analysis using SMAD2 monoclonal antibody, clone 5G7 (Cat # MAB10391) against recombinant SMAD2 protein.



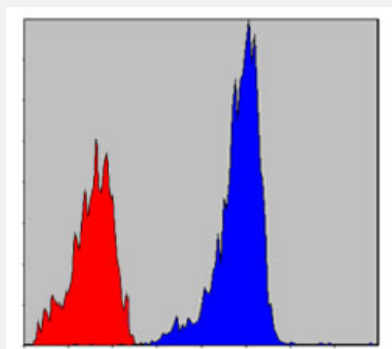
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical analysis of paraffin-embedded human cerebellum (A) and human liver cancer (B) tissue using SMAD2 monoclonal antibody, clone 5G7 (Cat # MAB10391) with DAB staining.



Immunofluorescence

Immunofluorescence analysis of U251 cells using SMAD2 monoclonal antibody, clone 5G7 (Cat # MAB10391) (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow Cytometry

Flow cytometric analysis of NIH/3T3 cells using SMAD2 monoclonal antibody, clone 5G7 (Cat # MAB10391) (blue) and negative control (red).

Specification

Product Description Mouse monoclonal antibody raised against recombinant SMAD2.

Immunogen Recombinant protein corresponding to human SMAD2.

Host Mouse

Theoretical MW (kDa) 52

Reactivity Human

Form Liquid

Isotype IgG1

Recommend Usage

- ELISA (1:10000)
- Western Blot (1:500-1:2000)
- Immunohistochemistry (1:200-1:1000)
- Immunofluorescence (1:200-1:1000)
- Flow cytometry (1:200-1:400)
- The optimal working dilution should be determined by the end user.

Storage Buffer In ascites (0.03% sodium azide)

Storage Instruction

- Store at 4°C. For long term storage store at -20°C.
- Aliquot to avoid repeated freezing and thawing.

Note

This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Applications

- Western Blot (Transfected lysate)

Western blot analysis using SMAD2 monoclonal antibody, clone 5G7 (Cat # MAB10391) against HEK293 (1) and SMAD2-hlgGfc transfected HEK293 (2) cell lysate.

- Western Blot (Recombinant protein)

Western blot analysis using SMAD2 monoclonal antibody, clone 5G7 (Cat # MAB10391) against recombinant SMAD2 protein.

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunohistochemical analysis of paraffin-embedded human cerebellum (A) and human liver cancer (B) tissue using SMAD2 monoclonal antibody, clone 5G7 (Cat # MAB10391) with DAB staining.

- Immunofluorescence

Immunofluorescence analysis of U251 cells using SMAD2 monoclonal antibody, clone 5G7 (Cat # MAB10391) (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

- Enzyme-linked Immunoabsorbent Assay

- Flow Cytometry

Flow cytometric analysis of NIH/3T3 cells using SMAD2 monoclonal antibody, clone 5G7 (Cat # MAB10391) (blue) and negative control (red).

Gene Info — SMAD2

Entrez GeneID	4087
Gene Name	SMAD2
Gene Alias	JV18, JV18-1, MADH2, MADR2, MGC22139, MGC34440, hMAD-2, hSMAD2
Gene Description	SMAD family member 2
Omim ID	601366
Gene Ontology	Hyperlink

Gene Summary

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 mediates the signal of the transforming growth factor (TGF)-beta, and thus regulates multiple cellular processes, such as cell proliferation, apoptosis, and differentiation. This protein is recruited to the TGF-beta receptors through its interaction with the SMAD anchor for receptor activation (SARA) protein. In response to TGF-beta signal, this protein is phosphorylated by the TGF-beta receptors. The phosphorylation induces the dissociation of this protein with SARA and the association with the family member SMAD4. The association with SMAD4 is important for the translocation of this protein into the nucleus, where it binds to target promoters and forms a transcription repressor complex with other cofactors. This protein can also be phosphorylated by activin type 1 receptor kinase, and mediates the signal from the activin. Alternatively spliced transcript variants encoding the same protein have been observed. [provided by RefSeq]

Other Designations

MAD, mothers against decapentaplegic homolog 2|Mad protein homolog|Mad, mothers against decapentaplegic homolog 2|Mad-related protein 2|SMAD, mothers against DPP homolog 2|Sma-and Mad-related protein 2|mother against DPP homolog 2

Pathway

- [Adherens junction](#)
- [Cell cycle](#)
- [Colorectal cancer](#)
- [Pancreatic cancer](#)
- [Pathways in cancer](#)
- [TGF-beta signaling pathway](#)
- [Wnt signaling pathway](#)

Disease

- [Adenocarcinoma](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Colitis](#)
- [Colorectal Neoplasms](#)
- [Esophageal Neoplasms](#)

- [Genetic Predisposition to Disease](#)
- [Hypertension](#)
- [Inflammatory Bowel Diseases](#)
- [Liver Cirrhosis](#)
- [Obesity](#)
- [Osteoporosis](#)
- [Ovarian Failure](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Polycystic Ovary Syndrome](#)
- [Puberty](#)
- [Thrombophilia](#)
- [Tobacco Use Disorder](#)