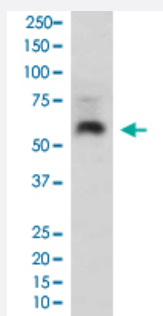


# SMAD1 monoclonal antibody, clone CAC-19

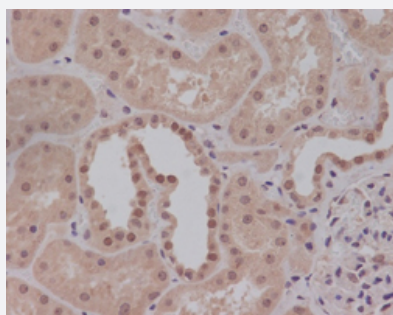
Catalog # MAB20715      Size 100 uL

## Applications



### Western Blot (Cell lysate)

Western Blot analysis of HeLa cell lysate with SMAD1 monoclonal antibody, clone CAC-19 (Cat # MAB20715).



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

Immunohistochemical staining (Formalin-fixed paraffin-embedded sections) of human kidney with SMAD1 monoclonal antibody, clone CAC-19 (Cat # MAB20715).

## Specification

|                      |   |
|----------------------|---|
| Product Description  | Rabbit monoclonal antibody raised against synthetic peptide of human SMAD1. |
| Immunogen            | A synthetic peptide corresponding to human SMAD1.                           |
| Host                 | Rabbit  |
| Theoretical MW (kDa) | 52.26   |
| Reactivity           | Human   |
| Form                 | Liquid  |
| Purification         | Affinity purification   |

|                     |  |
|---------------------|--|
| Isotype             | IgG  |
| Recommend Usage     | Immunocytochemistry (1:50-1:200)<br>Immunofluorescence (1:50-1:200)<br>Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)<br>Western Blot (1:500-1:2000)<br>The optimal working dilution should be determined by the end user. |
| Storage Buffer      | In PBS, 150 mM NaCl, pH 7.4 (50% glycerol, 0.02% sodium azide).  |
| Storage Instruction | Store at -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. 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 (Cell lysate)

Western Blot analysis of HeLa cell lysate with SMAD1 monoclonal antibody, clone CAC-19 (Cat # MAB20715).

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

Immunohistochemical staining (Formalin-fixed paraffin-embedded sections) of human kidney with SMAD1 monoclonal antibody, clone CAC-19 (Cat # MAB20715).

- Immunocytochemistry

- Immunofluorescence

## Gene Info — SMAD1

|                    |                                 |
|--------------------|---------------------------------|
| Entrez GeneID      | <a href="#">4086</a>            |
| Protein Accession# | <a href="#">Q15797</a>          |
| Gene Name          | SMAD1                           |
| Gene Alias         | BSP1, JV4-1, JV41, MADH1, MADR1 |
| Gene Description   | SMAD family member 1            |
| Omim ID            | <a href="#">601595</a>          |
| Gene Ontology      | <a href="#">Hyperlink</a>       |

**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 signals of the bone morphogenetic proteins (BMPs), which are involved in a range of biological activities including cell growth, apoptosis, morphogenesis, development and immune responses. In response to BMP ligands, this protein can be phosphorylated and activated by the BMP receptor kinase. The phosphorylated form of this protein forms a complex with SMAD4, which is important for its function in the transcription regulation. This protein is a target for SMAD-specific E3 ubiquitin ligases, such as SMURF1 and SMURF2, and undergoes ubiquitination and proteasome-mediated degradation. Alternatively spliced transcript variants encoding the same protein have been observed. [provided by RefSeq]

**Other Designations**

MAD, mothers against decapentaplegic homolog 1|Mad-related protein 1|SMAD, mothers against DPP homolog 1|Sma- and Mad-related protein 1|TGF-beta signaling protein 1|mothers against DPP homolog 1|transforming growth factor-beta signaling protein 1

**Pathway**

- [TGF-beta signaling pathway](#)

**Disease**

- [Cleft Lip](#)
- [Cleft Palate](#)
- [Diabetes Mellitus](#)
- [Diabetic Nephropathies](#)
- [Genetic Predisposition to Disease](#)
- [Head and Neck Neoplasms](#)
- [Hemochromatosis](#)
- [Hypertension](#)
- [Kidney Failure](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Obesity](#)
- [Ovarian Failure](#)

- [Polycystic Ovary Syndrome](#)
- [Puberty](#)
- [Thrombophilia](#)
- [Tobacco Use Disorder](#)