

**SMAD2 Antibody (monoclonal) (M05)****Mouse monoclonal antibody raised against a partial recombinant SMAD2.****Catalog # AT3940a****Specification**

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**SMAD2 Antibody (monoclonal) (M05) - Product Information**

Application	WB, IHC, IF, E
Primary Accession	<a href="#">Q15796</a>
Other Accession	<a href="#">BC025699</a>
Reactivity	Human
Host	mouse
Clonality	Monoclonal
Isotype	IgG2b Kappa
Calculated MW	52306

**SMAD2 Antibody (monoclonal) (M05) - Additional Information****Gene ID** 4087**Other Names**

Mothers against decapentaplegic homolog 2, MAD homolog 2, Mothers against DPP homolog 2, JV18-1, Mad-related protein 2, hMAD-2, SMAD family member 2, SMAD 2, Smad2, hSMAD2, SMAD2, MADH2, MADR2

**Target/Specificity**

SMAD2 (AAH25699, 181 a.a. ~ 280 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

**Dilution**

WB~~1:500~1000

IHC~~1:100~500

IF~~1:50~200

E~~N/A

**Format**

Clear, colorless solution in phosphate buffered saline, pH 7.2 .

**Storage**

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

**Precautions**

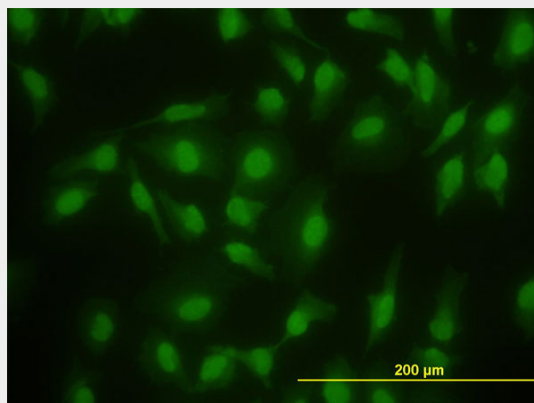
SMAD2 Antibody (monoclonal) (M05) is for research use only and not for use in diagnostic or therapeutic procedures.

**SMAD2 Antibody (monoclonal) (M05) - Protocols**

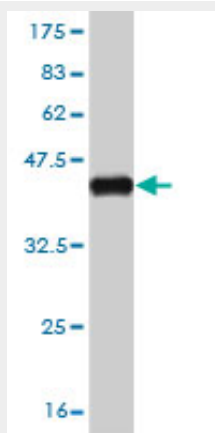
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

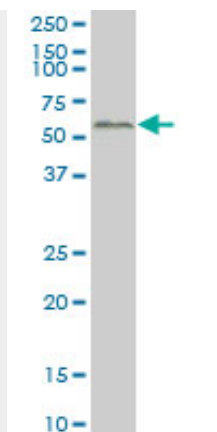
### SMAD2 Antibody (monoclonal) (M05) - Images



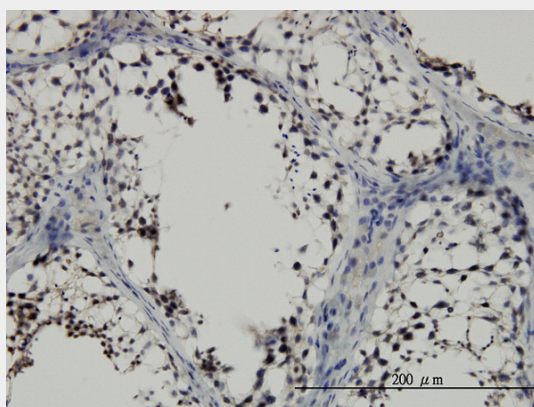
Immunofluorescence of monoclonal antibody to SMAD2 on HeLa cell. [antibody concentration 10 ug/ml]



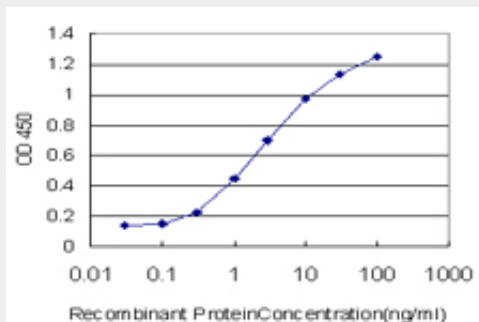
Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.63 KDa) .



SMAD2 monoclonal antibody (M05), clone 3G9 Western Blot analysis of SMAD2 expression in HeLa S3 NE (Cat # AT3940a)



Immunoperoxidase of monoclonal antibody to SMAD2 on formalin-fixed paraffin-embedded human testis. [antibody concentration 5 ug/ml]



Detection limit for recombinant GST tagged SMAD2 is approximately 0.1ng/ml as a capture antibody.

### SMAD2 Antibody (monoclonal) (M05) - Background

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.

#### **SMAD2 Antibody (monoclonal) (M05) - References**

1. Altered expression of p120catenin predicts poor outcome in invasive breast cancer. Talvinen K, Tuikkala J, Nykanen M, Nieminen A, Anttinen J, Nevalainen OS, Hurme S, Kuopio T, Kronqvist P. J Cancer Res Clin Oncol. 2010 Feb 12. [Epub ahead of print]