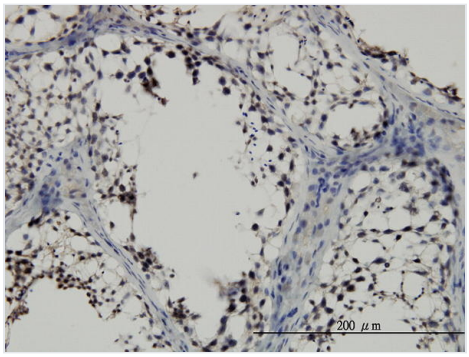
SMAD2 Antibody – Mouse Monoclonal

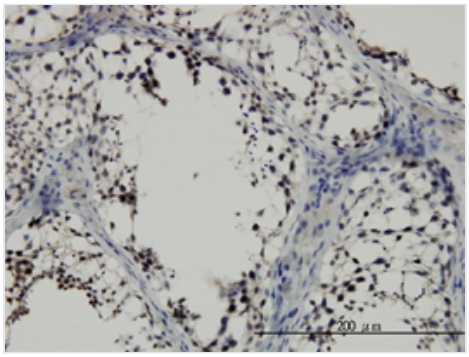
PRODUCT OVERVIEW

Product Name	SMAD2, Monoclonal Antibody
Full Product Name	SMAD2 (SMAD Family Member 2, JV18, JV18-1, MADH2, MADR2, MGC22139, MGC34440, hMAD-2, hSMAD2) (FITC)
Product Gene Name	anti-SMAD2 antibody
Product Synonym Names	SMAD Family Member 2; JV18; JV18-1; MADH2; MADR2; MGC22139; MGC34440; hMAD-2; hSMAD2
Clonality	Monoclonal
Isotype	IgG2b,k
Clone Number	3G9
Host	Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Fluorescein isothiocyanate (FITC).
Purity/Purification	Purified
Specificity	Recognizes SMAD2.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. FITC conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Immunogen	SMAD2 (AAH25699, 181aa-280aa) partial recombinant protein with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	PRHTEILTELPPLDDYTHSIPENTNFPAGIEPQSNYIPETPPPGYISEDGETSDQQLNQSMDTGSPAELSPTTLSPVNHSLDLQPVTYSEPAFWCSIAYY
Conjugate	FITC
Product Categories/Family for anti-SMAD2 antibody	Antibodies; Smad Proteins
Applications Tested/Suitable for anti-SMAD2 antibody	Immunofluorescence (IF), Immunohistochemistry (IHC), Western Blot (WB)
Application Notes for anti-SMAD2 antibody	Applications are based on unconjugated antibody.

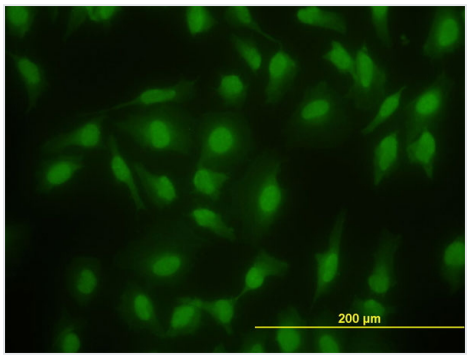
Related Product Information for anti-SMAD2 antibody	The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the Drosophila gene 'mothers against decapentaplegic' (Mad) and the C. elegans gene Sma. SMAD proteins are signal transducers and transcriptional 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]
Product References and Citations for anti-SMAD2 antibody	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.
Other Notes	Small volumes of anti-SMAD2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SMAD2 purchase	MBS6174875 is an antibody targeting SMAD2. Also known as SMAD2 (SMAD Family Member 2, JV18, JV18-1, MADH2, MADR2, MGC22139, MGC34440, hMAD-2, hSMAD2) (FITC). Host: Mouse.



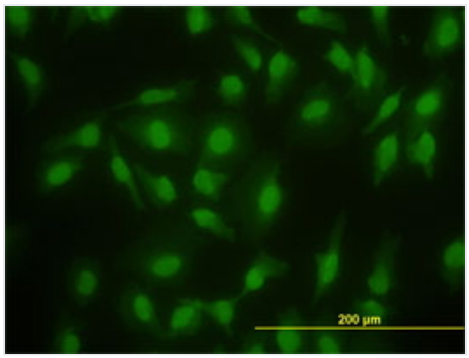
Testing Data of anti-SMAD2 antibody
Immunoperoxidase of monoclonal antibody to SMAD2 on formalin-fixed paraffin-embedded human testis. [antibody concentration 5 ug/ml]



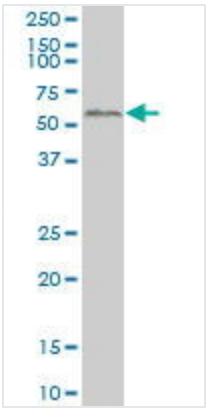
Immunohistochemistry (IHC) of anti-SMAD2 antibody
Immunoperoxidase of monoclonal antibody to SMAD2 on formalin-fixed paraffin-embedded human testis. [antibody concentration 5 ug/ml]



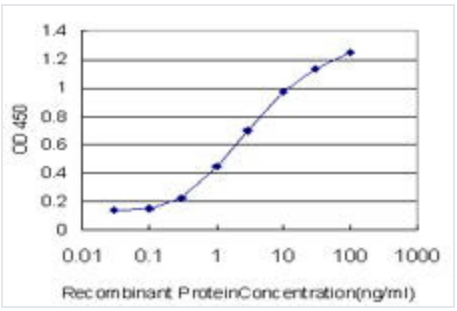
Immunofluorescence (IF) of anti-SMAD2 antibody
Immunofluorescence of monoclonal antibody to SMAD2 on HeLa cell. [antibody concentration 10 ug/ml]



Immunofluorescence (IF) of anti-SMAD2 antibody
Immunofluorescence of monoclonal antibody to SMAD2 on HeLa cell. [antibody concentration 10 ug/ml]



Western Blot (WB) of anti-SMAD2 antibody
SMAD2 monoclonal antibody (M05), clone 3G9 Western Blot analysis of SMAD2 expression in Hela S3 NE (Cat # L013V3).



Testing Data of anti-SMAD2 antibody
Detection limit for recombinant GST tagged SMAD2 is approximately 0.1ng/ml as a capture antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SMAD2. It may not necessarily be applicable to this product.

NCBI GI #	19344008
NCBI GeneID	4087
NCBI Accession #	AAH25699
UniProt Related Accession #	Q15796
NCBI Official Full Name	SMAD family member 2
NCBI Official Synonym Full Names	SMAD family member 2
NCBI Official Symbol	SMAD2
NCBI Official Synonym Symbols	JV18; MADH2; MADR2; JV18-1; hMAD-2; hSMAD2
Protein Family	Mothers against decapentaplegic
NCBI Protein Information	mothers against decapentaplegic homolog 2
NCBI Summary for SMAD2	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 have been observed for this gene. [provided by RefSeq, May 2012]
Research Articles on SMAD2	**1.** Low SMAD2 expression correlates with increased susceptibility to asthma and more frequent asthma exacerbations.
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