SMAD2 monoclonal antibody (M07), clone 2D7

Catalog # H00004087-M07 Size 100 ug

Applications



Western Blot (Cell lysate)

SMAD2 monoclonal antibody (M07), clone 2D7 Western Blot analysis of SMAD2 expression in HeLa (Cat # L013V1).



Sandwich ELISA (Recombinant protein)

Detection limit for recombinant GST tagged SMAD2 is approximately 0.3ng/ml as a capture antibody.



In situ Proximity Ligation Assay (Cell)

Proximity Ligation Analysis of protein-protein interactions between CAMK2A and SMAD2. HeLa cells were stained with anti-CAMK2A rabbit purified polyclonal 1:1200 and anti-SMAD2 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).



Product Information

175 -	
83 -	
62 -	
47.5-	•
32.5-	
25 -	
16.5 =	

Western Blot detection against Immunogen (36.63 KDa).

Specification	
Product Description	Mouse monoclonal antibody raised against a partial recombinant SMAD2.
Immunogen	SMAD2 (AAH25699, 181 a.a. ~ 280 a.a) partial recombinant protein with GST tag. MW of the GST t ag alone is 26 KDa.
Sequence	PRHTEILTELPPLDDYTHSIPENTNFPAGIEPQSNYIPETPPPGYISEDGETSDQQLNQSMDTGSPA ELSPTTLSPVNHSLDLQPVTYSEPAFWCSIAYY
Host	Mouse
Reactivity	Human
Interspecies Antigen Sequence	Rat (100)
lsotype	lgG2a Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.63 KDa).
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

• Western Blot (Cell lysate)

SMAD2 monoclonal antibody (M07), clone 2D7 Western Blot analysis of SMAD2 expression in HeLa (Cat # L013V1). <u>Protocol Download</u>



- Western Blot (Recombinant protein)
 Protocol Download
- Sandwich ELISA (Recombinant protein)
 Detection limit for recombinant GST tagged SMAD2 is approximately 0.3ng/ml as a capture antibody.
 <u>Protocol Download</u>
- ELISA
- In situ Proximity Ligation Assay (Cell)

Proximity Ligation Analysis of protein-protein interactions between CAMK2A and SMAD2. HeLa cells were stained with anti-CAMK2A rabbit purified polyclonal 1:1200 and anti-SMAD2 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

Gene Info — SMAD2	
Entrez GenelD	<u>4087</u>
GeneBank Accession#	<u>BC025699</u>
Protein Accession#	AAH25699
Gene Name	SMAD2
Gene Alias	JV18, JV18-1, MADH2, MADR2, MGC22139, MGC34440, hMAD-2, hSMAD2
Gene Description	SMAD family member 2
Omim ID	<u>601366</u>
Gene Ontology	Hyperlink



Gene Summary

Product Information

The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene pr oducts 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 differentia tion. This protein is recruited to the TGF-beta receptors through its interaction with the SMAD anc hor for receptor activation (SARA) protein. In response to TGF-beta signal, this protein is phosph orylated 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 i mportant for the translocation of this protein into the nucleus, where it binds to target promoters an d forms a transcription repressor complex with other cofactors. This protein can also be phosphor ylated by activin type 1 receptor kinase, and mediates the signal from the activin. Alternatively spli ced 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 d ecapentaplegic homolog 2|Mad-related protein 2|SMAD, mothers against DPP homolog 2|Smaand Mad-related protein 2|mother against DPP homolog 2

Pathway

- Adherens junction
- <u>Cell cycle</u>
- Colorectal cancer
- Pancreatic cancer
- Pathways in cancer
- <u>TGF-beta signaling pathway</u>
- Wnt signaling pathway

Disease

- Adenocarcinoma
- Cleft Lip
- <u>Cleft Palate</u>
- Colitis
- <u>Colorectal Neoplasms</u>
- Esophageal Neoplasms

😵 Abnova

Product Information

- <u>Genetic Predisposition to Disease</u>
- Hypertension
- Inflammatory Bowel Diseases
- Liver Cirrhosis
- <u>Obesity</u>
- Osteoporosis
- Ovarian Failure
- Pancreatic cancer
- Pancreatic Neoplasms
- Polycystic Ovary Syndrome
- Puberty
- Thrombophilia
- Tobacco Use Disorder