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SMAD1 Antibody (monoclonal) (M03)

Mouse monoclonal antibody raised against a full length recombinant SMAD1.
Catalog # AT3937a

Product Information

Application	WB, IHC, IF, E
Primary Accession	Q15797
Other Accession	BC001878
Reactivity	Human, Mouse, Rat
Host	mouse
Clonality	monoclonal
Isotype	IgG1 Kappa
Clone Names	2E10
Calculated MW	52260

Additional Information

Gene ID	4086
Other Names	Mothers against decapentaplegic homolog 1, MAD homolog 1, Mothers against DPP homolog 1, JV4-1, Mad-related protein 1, SMAD family member 1, SMAD 1, Smad1, hSMAD1, Transforming growth factor-beta-signaling protein 1, BSP-1, SMAD1, BSP1, MADH1, MADR1
Target/Specificity	SMAD1 (AAH01878.1, 1 a.a. ~ 465 a.a) full-length 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	SMAD1 Antibody (monoclonal) (M03) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

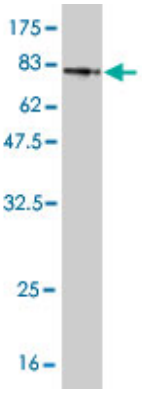
The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the Drosophila gene 'mothers against decapentaplegic' (Mad) and the C. elegans gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein mediates the 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.

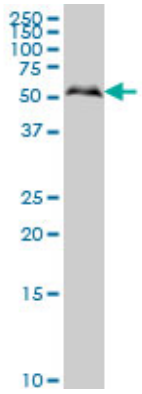
References

1.Temporal and regional patterns of Smad activation in the rat hippocampus following global ischemia.Nakajima T, Yanagihara M, Nishii HJ Neurol Sci. 2013 Nov 19. pii: S0022-510X(13)03041-4. doi: 10.1016/j.jns.2013.11.012.

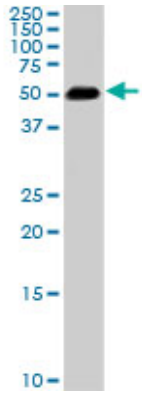
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (76.89 KDa) .

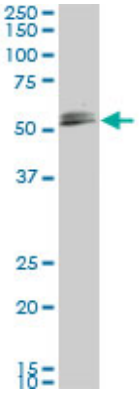


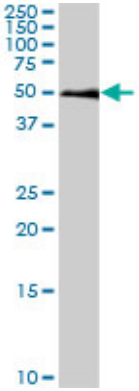
SMAD1 monoclonal antibody (M03), clone 2E9 Western Blot analysis of SMAD1 expression in HeLa ((Cat # AT3937a)



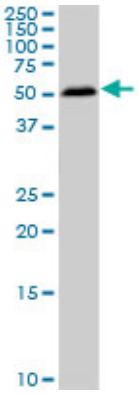
SMAD1 monoclonal antibody (M03), clone 2E9. Western Blot analysis of SMAD1 expression in PC-12 ((Cat # AT3937a)

SMAD1 monoclonal antibody (M03), clone 2E9. Western Blot analysis of SMAD1 expression in IMR-32 ((Cat # AT3937a)

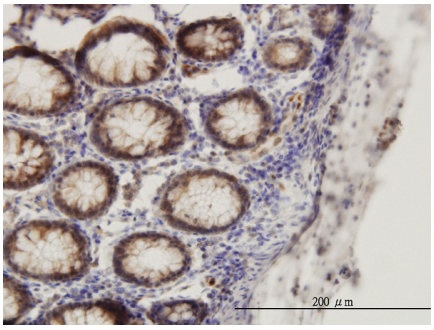




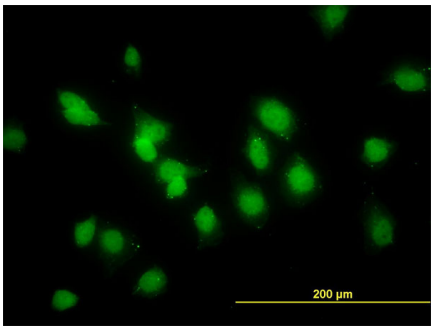
SMAD1 monoclonal antibody (M03), clone 2E9. Western Blot analysis of SMAD1 expression in Raw 264.7 ((Cat # AT3937a)



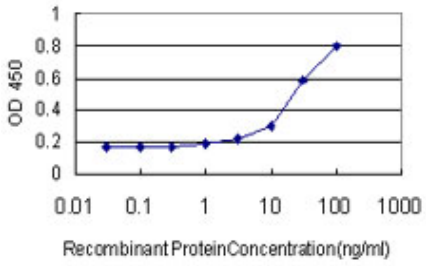
SMAD1 monoclonal antibody (M03), clone 2E9. Western Blot analysis of SMAD1 expression in NIH/3T3 ((Cat # AT3937a)



Immunoperoxidase of monoclonal antibody to SMAD1 on formalin-fixed paraffin-embedded human colon. [antibody concentration 3 ug/ml]



Immunofluorescence of monoclonal antibody to SMAD1 on HeLa cell. [antibody concentration 10 ug/ml]



Detection limit for recombinant GST tagged SMAD1 is approximately 1ng/ml as a capture antibody.