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SMAD4 Antibody (monoclonal) (M02)

Mouse monoclonal antibody raised against a full length recombinant SMAD4.
Catalog # AT3943a

Product Information

Application	WB, IF, E
Primary Accession	Q13485
Other Accession	BC002379
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	3E3
Calculated MW	60439

Additional Information

Gene ID	4089
Other Names	Mothers against decapentaplegic homolog 4, MAD homolog 4, Mothers against DPP homolog 4, Deletion target in pancreatic carcinoma 4, SMAD family member 4, SMAD 4, Smad4, hSMAD4, SMAD4, DPC4, MADH4
Target/Specificity	SMAD4 (AAH02379, 1 a.a. ~ 552 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 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	SMAD4 Antibody (monoclonal) (M02) is for research use only and not for use in diagnostic or therapeutic procedures.

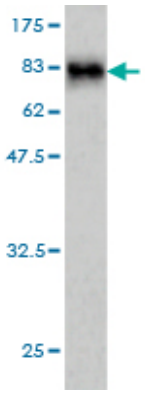
Background

This gene encodes a member of the Smad family of signal transduction proteins. Smad proteins are phosphorylated and activated by transmembrane serine-threonine receptor kinases in response to TGF-beta signaling. The product of this gene forms homomeric complexes and heteromeric complexes with other activated Smad proteins, which then accumulate in the nucleus and regulate the transcription of target genes. This protein binds to DNA and recognizes an 8-bp palindromic sequence (GTCTAGAC) called the Smad-binding element (SBE). The Smad proteins are subject to complex regulation by post-translational modifications. Mutations or deletions in this gene have been shown to result in pancreatic cancer, juvenile polyposis syndrome, and hereditary hemorrhagic telangiectasia syndrome.

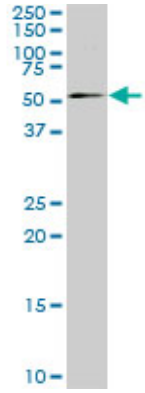
References

SMAD4 mediates mesenchymal-epithelial reversion in SW480 colon carcinoma cells. Pohl M, et al. Anticancer Res, 2010 Jul. PMID 20682989.Maternal genes and facial clefts in offspring: a comprehensive search for genetic associations in two population-based cleft studies from Scandinavia. Jugessur A, et al. PLoS One, 2010 Jul 9. PMID 20634891.Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.SMAD4--molecular gladiator of the TGF-beta signaling is trampled upon by mutational insufficiency in colorectal carcinoma of Kashmiri population: an analysis with relation to KRAS proto-oncogene. Sameer AS, et al. BMC Cancer, 2010 Jun 17. PMID 20565773.Expression of oncogenic K-ras and loss of Smad4 cooperate to induce the expression of EGFR and to promote invasion of immortalized human pancreas ductal cells. Zhao S, et al. Int J Cancer, 2010 Nov 1. PMID 20473902.

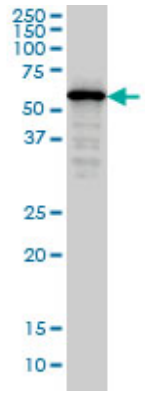
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (86.46 KDa) .

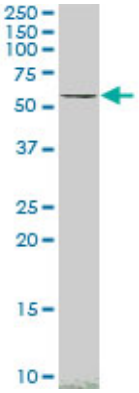


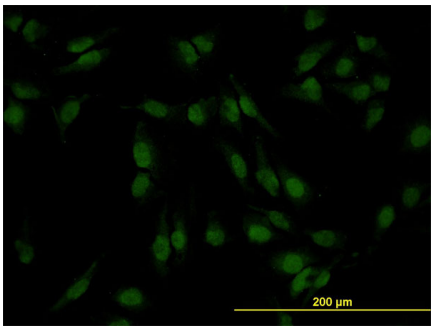
SMAD4 monoclonal antibody (M02), clone 3E2. Western Blot analysis of SMAD4 expression in IMR-32 ((Cat # AT3943a)



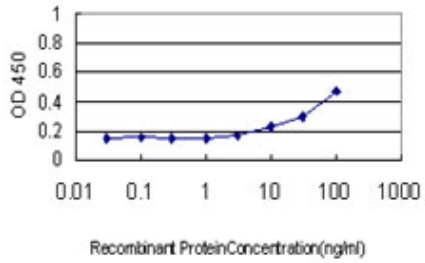
SMAD4 monoclonal antibody (M02), clone 3E2 Western Blot analysis of SMAD4 expression in Hela S3 NE ((Cat # AT3943a)

SMAD4 monoclonal antibody (M02), clone 3E2. Western Blot analysis of SMAD4 expression in K-562 ((Cat # AT3943a)

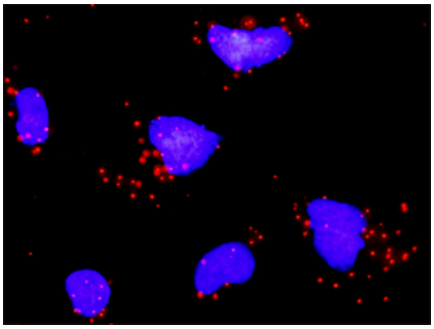




Immunofluorescence of monoclonal antibody to SMAD4 on HeLa cell. [antibody concentration 10 ug/ml]



Detection limit for recombinant GST tagged SMAD4 is approximately 3ng/ml as a capture antibody.



Proximity Ligation Analysis of protein-protein interactions between CDKN1A and SMAD4 HeLa cells were stained with anti-CDKN1A rabbit purified polyclonal 1:1200 and anti-SMAD4 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.