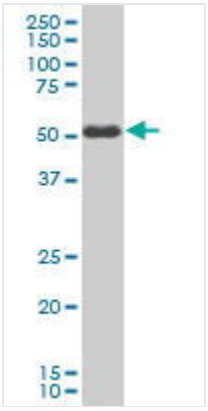
SMAD3 Antibody – Mouse Monoclonal

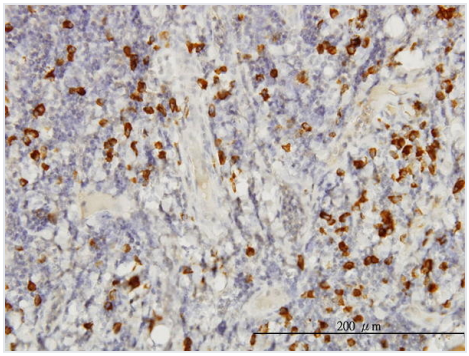
PRODUCT OVERVIEW

Product Name	SMAD3, Monoclonal Antibody
Full Product Name	SMAD3 (SMAD Family Member 3, DKFZp586N0721, DKFZp686J10186, HSPC193, HsT17436, JV15-2, MADH3, MGC60396) (AP)
Product Gene Name	anti-SMAD3 antibody
Product Synonym Names	SMAD Family Member 3; DKFZp586N0721; DKFZp686J10186; HSPC193; HsT17436; JV15-2; MADH3; MGC60396
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	2C12
Host	Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Alkaline Phosphatase (AP).
Purity/Purification	Purified
Specificity	Recognizes SMAD3.
Preparation and Storage	Store product at 4 degree C. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only pri to immediate use. Further dilutions can be made in assay buffer. For maximum recovery of product, centrifuge the original vial prior to removing the cap
Molecular Weight	50.2 kDa (445aa), confirmed by MALDI-TOF.
OMIM	114500
3D Structure	ModBase 3D Structure for P84022
Immunogen	SMAD3 (NP_005893, 120aa-221aa) partial recombinant protein with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	VCVNPYHYQRVETPVLPPVLVPRHTEIPAEFPPLDDYSHSIPENTNFPAGIEPQSNIPETPPPGYLSEDGETSDHQMNHSMDAGSPNLSPNPMSPAHNNL
Conjugate	AP
Product Categories/Family for anti-SMAD3 antibody	Antibodies; Smad Proteins
Applications Tested/Suitable for anti-SMAD3 antibody	Immunohistochemistry (IHC), Western Blot (WB)
Application Notes for anti-SMAD3 antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-SMAD3 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 functions as a transcriptional modulator activated by transforming growth factor-beta and is thought to play a role in the regulation of carcinogenesis. [provided by RefSeq]

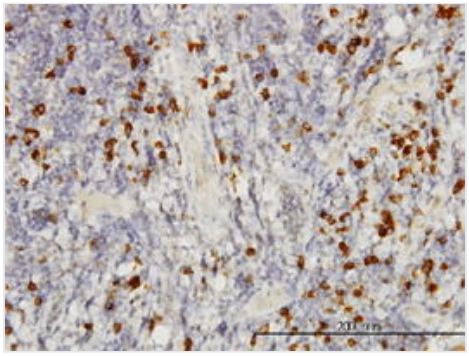
Other Notes	Small volumes of anti-SMAD3 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SMAD3 purchase	MBS6161646 is an antibody targeting SMAD3. Also known as SMAD3 (SMAD Family Member 3, DKFZp586N0721, DKFZp686J10186, HSPC193, HsT17436, JV15-2, MADH3, MGC60396) (AP). Host: Mouse.



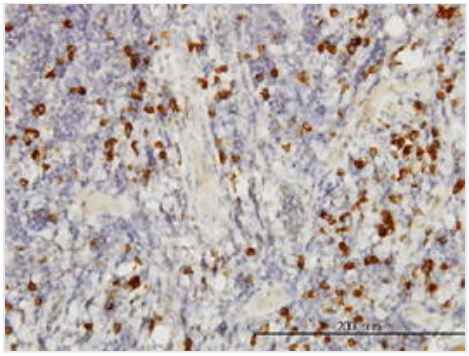
Western Blot (WB) of anti-SMAD3 antibody
SMAD3 monoclonal antibody (M01), clone 2C12. Western Blot analysis of SMAD3 expression in human colon.



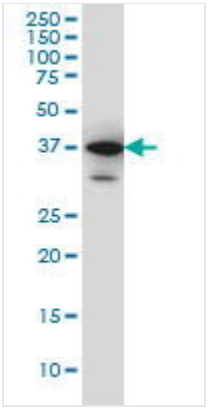
Immunohistochemistry (IHC) of anti-SMAD3 antibody
Immunoperoxidase of monoclonal antibody to SMAD3 on formalin-fixed paraffin-embedded human tonsil. [antibody concentration 6 ug/ml]



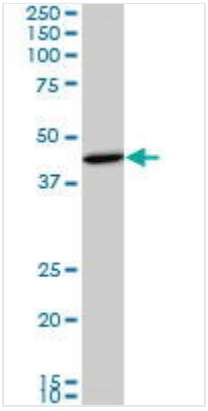
Immunohistochemistry (IHC) of anti-SMAD3 antibody
Immunoperoxidase of monoclonal antibody to SMAD3 on formalin-fixed paraffin-embedded human tonsil. [antibody concentration 6 ug/ml]



Western Blot (WB) of anti-SMAD3 antibody
Western Blot analysis of SMAD3 expression in transfected 293T cell line by SMAD3 monoclonal antibody (M01), clone 2C12.Lane 1: SMAD3 transfected lysate(48 KDa).Lane 2: Non-transfected lysate.



Western Blot (WB) of anti-SMAD3 antibody
SMAD3 monoclonal antibody (M01), clone 2C12. Western Blot analysis of SMAD3 expression in HeLa.



Western Blot (WB) of anti-SMAD3 antibody
SMAD3 monoclonal antibody (M01), clone 2C12. Western Blot analysis of SMAD3 expression in Hs 181.Tes.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SMAD3. It may not necessarily be applicable to this product.

NCBI GI #	5174513
NCBI GeneID	4088
NCBI Accession #	NP_005893
UniProt Primary Accession #	P84022
UniProt Secondary Accession #	O09064; O09144; O14510; O35273; Q92940; Q93002; A8K4B6; B7Z4Z5; B7Z6M9; B7Z9Q2; F5H383
UniProt Related Accession #	P84022
GenBank Nucleotide #	NM_005902.3
NCBI Official Full Name	mothers against decapentaplegic homolog 3 isoform 1
NCBI Official Synonym Full Names	SMAD family member 3
NCBI Official Symbol	SMAD3
NCBI Official Synonym Symbols	LDS3; LDS1C; MADH3; JV15-2; HSPC193; HsT17436
UniProt Protein Name	Mothers against decapentaplegic homolog 3
UniProt Synonym Protein Names	JV15-2; SMAD family member 3
Protein Family	Mothers against decapentaplegic
UniProt Gene Name	SMAD3
UniProt Synonym Gene Names	MADH3; MAD homolog 3; Mad3; Mothers against DPP homolog 3; hMAD-3; SMAD 3; Smad3; hSMAD3
UniProt Entry Name	SMAD3_HUMAN
NCBI Protein Information	mothers against decapentaplegic homolog 3

UniProt Comments for SMAD3	SMAD3: transcription factor phosphorylated and activated by TGF-beta-type receptors. A receptor-regulated Smad (R-smad). Binds directly to consensus DNA-binding elements in the promoters of target genes. In mouse required for establishemnt of the mucosal immune response and proper development of skeleton. Protein type: DNA-binding; Transcription factor; Nuclear receptor co-regulator Chromosomal Location of Human Ortholog: 15q22.33 Cellular Component: nucleoplasm; transcription factor complex; nuclear chromatin; cytoplasm; plasma membrane; nuclear inner membrane; cytosol; nucleus; receptor complex Molecular Function: identical protein binding; ubiquitin binding; protein homodimerization activity; zinc ion binding; chromatin DNA binding; beta-catenin binding; protein kinase binding; transcription factor binding; phosphatase binding; transforming growth factor beta receptor, pathway-specific cytoplasmic mediator activity; collagen binding; protein binding; sequence-specific DNA binding; ubiquitin protein ligase binding; double-stranded DNA binding; bHLH transcription factor binding; transforming growth factor beta receptor binding; transcription factor activity Biological Process: developmental growth; positive regulation of positive chemotaxis; positive regulation of transcription, DNA-dependent; activin receptor signaling pathway; paraxial mesoderm morphogenesis; embryonic pattern specification; regulation of transforming growth factor beta receptor signaling pathway; transforming growth factor beta receptor signaling pathway; positive regulation of stress fiber formation; embryonic foregut morphogenesis; negative regulation of mitotic cell cycle; negative regulation of osteoblast differentiation; cell cycle arrest; regulation of striated muscle development; pericardium development; somitogenesis; transcription, DNA-dependent; embryonic cranial skeleton morphogenesis; osteoblast development; regulation of transcription from RNA polymerase II promoter; positive regulation of chondrocyte differentiation; mesoderm formation; negative regulation of osteoblast proliferation; positive regulation of transcription from RNA polymerase II promoter; negative regulation of protein catabolic process; endoderm development; negative regulation of apoptosis; evasion of host defenses by virus; wound healing; T cell activation; negative regulation of transcription from RNA polymerase II promoter; primary microRNA processing; regulation of epithelial cell proliferation; positive regulation of focal adhesion formation; negative regulation of protein amino acid phosphorylation; ureteric bud development; transport; positive regulation of transforming growth factor-beta3 production; thyroid gland development; positive regulation of transcription factor import into nucleus; heart looping; caspase activation; transcription initiation from RNA polymerase II promoter; intercellular junction assembly and maintenance; regulation of transforming growth factor-beta2 production; regulation of immune response; regulation of binding; protein stabilization; in utero embryonic development; positive regulation of bone mineralization; liver development; SMAD protein complex assembly; immune system development; positive regulation of interleukin-1 beta production; negative regulation of inflammatory response; response to hypoxia; gene expression; immune response; negative regulation of cell growth; negative regulation of transforming growth factor beta receptor signaling pathway; positive regulation of cell migration Disease: Loeys-dietz Syndrome 3
Research Articles on SMAD3	**1.** Authors were able to confirm expression of SMAD3 in intact and degraded cartilage of the knee and hip. Our findings provide the first systematic evaluation of pleiotropy between OA and BMD, highlight genes with biological relevance to both traits, and establish a robust new OA genetic risk locus at SMAD3.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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