SMAD6 Blocking Peptide (C-Term) Blocking Peptide

PRODUCT OVERVIEW

Product Name	SMAD6, Blocking Peptide
Full Product Name	SMAD6 Blocking Peptide (C-term)
Product Gene Name	SMAD6 blocking peptide
Product Synonym Gene Name	MADH6
Product Synonym Names	Mothers against decapentaplegic homolog 6; MAD homolog 6; Mothers against DPP homolog 6; SMAD family member 6; SMAD 6; Smad6; hSMAD6; SMAD6; MADH6
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 1 mg/ml.
Specificity	The synthetic peptide sequence is selected from aa 372-386 of HUMAN SMAD6
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	SMAD6 peptide (MBS9228872) is used for blocking the activity of SMAD6 antibody (MBS9204607)
Molecular Weight	35,467 Da
OMIM	602931
Cellular Location	Nucleus.
Tissue Location	Ubiquitous in various organs, with higher levels in lung. Isoform B is up-regulated in diseased heart tissue
Related Product Information for SMAD6 blocking peptide	Acts as a mediator of TGF-beta and BMP antiflammatory activity. Suppresses IL1R-TLR signaling through its direct interaction with PEL1, preventing NF-kappa-B activation, nuclear transport and NF-kappa-B-mediated expression of proinflammatory genes. May block the BMP-SMAD1 signaling pathway by competing with SMAD4 for receptor-activated SMAD1-binding. Binds to regulatory elements in target promoter regions.
Other Notes	Small volumes of SMAD6 blocking peptide 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 SMAD6 purchase	MBS9228872 is a blocking peptide targeting SMAD6. Also known as SMAD6 Blocking Peptide (C-term).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SMAD6. It may not necessarily be applicable to this product.

NCBI GI #	92859871
NCBI GeneID	4091
NCBI Accession #	NP_005576.3
UniProt Primary Accession #	O43541
UniProt Secondary Accession #	O43654; Q15799; Q7Z7L4; Q96E31; Q9UKZ3; A9J6M5
UniProt Related Accession #	O43541
GenBank Nucleotide #	NM_005585.4
NCBI Official Full Name	mothers against decapentaplegic homolog 6
NCBI Official Synonym Full Names	SMAD family member 6

NCBI Official Symbol	SMAD6
NCBI Official Synonym Symbols	AOVD2; MADH6; MADH7; HsT17432
UniProt Protein Name	Mothers against decapentaplegic homolog 6
UniProt Synonym Protein Names	SMAD family member 6; SMAD 6; Smad6; hSMAD6
Protein Family	Mothers against decapentaplegic
UniProt Gene Name	SMAD6
UniProt Synonym Gene Names	MADH6; MAD homolog 6; Mothers against DPP homolog 6; SMAD 6; Smad6; hSMAD6
UniProt Entry Name	SMAD6_HUMAN
NCBI Protein Information	mothers against decapentaplegic homolog 6
NCBI Summary for SMAD6	The protein encoded by this gene belongs to the SMAD family of proteins, which are related to Drosophila 'mothers against decapentaplegic' (Mad) and C. elegans Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein functions in the negative regulation of BMP and TGF-beta/activin-signalling. Multiple transcript variants have been found for this gene.[provided by RefSeq, Sep 2014]
UniProt Comments for SMAD6	SMAD6: Antagonist of signaling by TGF-beta (transforming growth factor) type 1 receptor superfamily members; has been shown to inhibit selectively BMP (bone morphogenetic proteins) signaling by competing with the co-SMAD SMAD4 for receptor-activated SMAD1. SMAD6 is an inhibitory SMAD (I-SMAD) or antagonistic SMAD. Binds to regulatory elements in target promoter regions. Interacts with NEDD4L. Interacts with WWP1. Interacts with RNF111 and AXIN1. Interacts with TGF-beta type I receptor superfamily members, SMAD1, HOXC8 and HOXC9. Interacts with STAMBP and PRKX. Ubiquitous in various organs, with higher levels in lung. Isoform B is up-regulated in diseased heart tissue. Belongs to the dwarfin/SMAD family. 3 isoforms of the human protein are produced by alternative splicing. Protein type: DNA-binding; Transcription factor Chromosomal Location of Human Ortholog: 15q22.31 Cellular Component: cytoplasm; cytosol; nucleus; protein complex Molecular Function: chromatin binding; identical protein binding; protein binding; transforming growth factor beta receptor, inhibitory cytoplasmic mediator activity; ubiquitin protein ligase binding Biological Process: BMP signaling pathway; cell-substrate adhesion; fat cell differentiation; immune response; negative regulation of apoptosis; negative regulation of BMP signaling pathway; negative regulation of cell proliferation; negative regulation of transforming growth factor beta receptor signaling pathway; zygotic determination of dorsal/ventral axis Disease: Aortic Valve Disease 2
Research Articles on SMAD6	**1.** Single Nucleotide Polymorphisms in SMAD6 gene is associated with brain metastasis in non-small-cell lung cancer
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