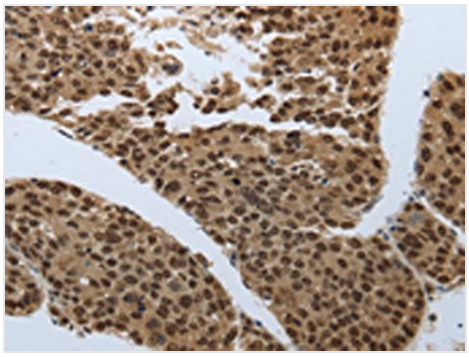
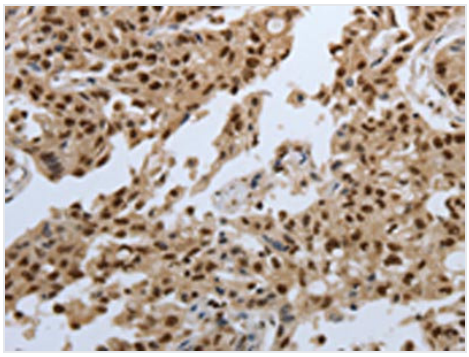
SMAD7 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

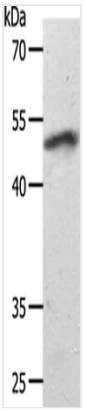
Product Name	SMAD7, Polyclonal Antibody
Full Product Name	SMAD7 Antibody
Product Gene Name	anti-SMAD7 antibody
Product Synonym Names	SMAD family member 7
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Liquid; In Phosphate Buffered Saline, pH 7.4, 0.05% NaN3, and 40% Glycerol
Purity/Purification	Antigen Affinity Purification
Preparation and Storage	Upon receipt, store at -20 degree C or -80 degree C. Avoid repeated freeze.
Molecular Weight	46,426 Da
Chromosome Location	Chromosome: 18; NC_000018.9 (46446223..46477081, complement). Location: 18q21.1
OMIM	602932
3D Structure	ModBase 3D Structure for O15105
Immunogen	Synthetic peptide of human SMAD7
Immunogen Species	Human
Conjugate	Non-conjugated
Product Categories/Family for anti-SMAD7 antibody	Signal Transduction
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-SMAD7 antibody	ELISA (EIA), Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-SMAD7 antibody	ELISA: 1:2000-1:10000 WB: 1:500-1:2000 IHC: 1:50-1:200
Related Product Information for anti-SMAD7 antibody	MBS7127694 is an antibody targeting SMAD7. Also known as SMAD7 Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.
Other Notes	Small volumes of anti-SMAD7 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.



Immunohistochemistry (IHC)-Paraffin of anti-SMAD7 antibody
The image on the left is immunohistochemistry of paraffin-embedded Human liver cancer tissue using MBS7127694(SMAD7 Antibody) at dilution 1/60, on the right is treated with synthetic peptide. (Original magnification: ×200)



Immunohistochemistry (IHC)-Paraffin of anti-SMAD7 antibody
The image on the left is immunohistochemistry of paraffin-embedded Human lung cancer tissue using MBS7127694(SMAD7 Antibody) at dilution 1/60, on the right is treated with synthetic peptide. (Original magnification: ×200)



SDS-Page of anti-SMAD7 antibody
Gel: 10%SDS-PAGE, Lysate: 40 ug, Lane: Mouse heart tissue, Primary antibody: MBS7127694(SMAD7 Antibody) at dilution 1/1000, Secondary antibody: Goat anti rabbit IgG at 1/8000 dilution, Exposure time: 40 seconds

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SMAD7. It may not necessarily be applicable to this product.

NCBI GI #	18418630
NCBI GeneID	4092
NCBI Accession #	AAL68977.1
UniProt Primary Accession #	O15105
UniProt Secondary Accession #	O14740; Q6DK23; B7Z773; K7EQ10
UniProt Related Accession #	O15105
NCBI Official Full Name	Smad7
NCBI Official Synonym Full Names	SMAD family member 7
NCBI Official Symbol	SMAD7
NCBI Official Synonym Symbols	CRCS3; MADH7; MADH8
UniProt Protein Name	Mothers against decapentaplegic homolog 7
UniProt Synonym Protein Names	Mothers against decapentaplegic homolog 8; MAD homolog 8; Mothers against DPP homolog 8; SMAD family member 7
Protein Family	Mothers against decapentaplegic
UniProt Gene Name	SMAD7

UniProt Synonym Gene Names	MADH7; MADH8; MAD homolog 7; Mothers against DPP homolog 7; MAD homolog 8; Mothers against DPP homolog 8; SMAD 7; Smad7; hSMAD7
UniProt Entry Name	SMAD7_HUMAN
NCBI Protein Information	mothers against decapentaplegic homolog 7; hSMAD7; MAD homolog 8; mothers against DPP homolog 8; SMAD, mothers against DPP homolog 7; Mothers against decapentaplegic, drosophila, homolog of, 7; MAD (mothers against decapentaplegic, Drosophila) homolog 7
NCBI Summary for SMAD7	The protein encoded by this gene is a nuclear protein that binds the E3 ubiquitin ligase SMURF2. Upon binding, this complex translocates to the cytoplasm, where it interacts with TGF-beta receptor type-1 (TGFBR1), leading to the degradation of both the encoded protein and TGFBR1. Expression of this gene is induced by TGFBR1. Variations in this gene are a cause of susceptibility to colorectal cancer type 3 (CRCS3). Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2010]
UniProt Comments for SMAD7	SMAD7: Antagonist of signaling by TGF-beta (transforming growth factor) type 1 receptor superfamily members; has been shown to inhibit TGF-beta (Transforming growth factor) and activin signaling by associating with their receptors thus preventing SMAD2 access. Functions as an adapter to recruit SMURF2 to the TGF-beta receptor complex. Also acts by recruiting the PPP1R15A- PP1 complex to TGFBR1, which promotes its dephosphorylation. Positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator. Genetic variations in SMAD7 influence susceptibility to colorectal cancer type 3 (CRCS3). Colorectal cancer consists of tumors or cancer of either the colon or rectum or both. Cancers of the large intestine are the second most common form of cancer found in males and females. Symptoms include rectal bleeding, occult blood in stools, bowel obstruction and weight loss. Treatment is based largely on the extent of cancer penetration into the intestinal wall. Surgical cures are possible if the malignancy is confined to the intestine. Risk can be reduced when following a diet which is low in fat and high in fiber. Belongs to the dwarfin/SMAD family. Protein type: DNA-binding; Transcription factor Chromosomal Location of Human Ortholog: 18q21.1 Cellular Component: nucleoplasm; transcription factor complex; protein complex; cell-cell adherens junction; cytoplasm; plasma membrane; catenin complex; cytosol; nucleus Molecular Function: collagen binding; protein binding; ubiquitin protein ligase binding; metal ion binding; beta-catenin binding; activin binding; transforming growth factor beta receptor, inhibitory cytoplasmic mediator activity; transcription factor activity Biological Process: transcription initiation from RNA polymerase II promoter; transcription, DNA-dependent; protein stabilization; negative regulation of transcription factor activity; negative regulation of peptidyl-serine phosphorylation; negative regulation of transcription from RNA polymerase II promoter; regulation of activin receptor signaling pathway; negative regulation of BMP signaling pathway; BMP signaling pathway; regulation of transforming growth factor beta receptor signaling pathway; ureteric bud development; positive regulation of protein ubiquitination; transforming growth factor beta receptor signaling pathway; positive regulation of proteasomal ubiquitin-dependent protein catabolic process; negative regulation of ubiquitin-protein ligase activity; positive regulation of cell-cell adhesion; ventricular cardiac muscle morphogenesis; artery morphogenesis; positive regulation of transcription from RNA polymerase II promoter; gene expression; negative regulation of protein ubiquitination; negative regulation of transforming growth factor beta receptor signaling pathway; negative regulation of cell migration Disease: Colorectal Cancer, Susceptibility To, 3
Research Articles on SMAD7	**1.** MiR-25 may function as a tumor suppressor by targeting Smad7 in colon cancer.
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