

Rabbit Phospho-SMAD3 (S213) Polyclonal Antibody | anti-SMAD3 antibody

Phospho-SMAD3 (S213) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA285661	Rabbit	Human (Predicted Reactivity: Chicken, Mouse, Pig, Rat)	Western Blot, Immunohistochemistry, ELISA

PRODUCT SYNONYMS

Phospho-SMAD3 (S213); Polyclonal Antibody; Phospho-SMAD3 (S213) Antibody; Mothers against decapentaplegic homolog 3; MAD homolog 3; Mad3; Mothers against DPP homolog 3; hMAD-3; JV15-2; SMAD family member 3; SMAD 3; Smad3; hSMAD3; SMAD3; MADH3; anti-SMAD3 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human (Predicted Reactivity: Chicken, Mouse, Pig, Rat)
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This SMAD3 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S213 of human SMAD3.
Purity/Purification	Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Sequence Length	320
Applicable Applications for anti-SMAD3 antibody	WB (Western Blot), IHC (Immunohistochemistry), ELISA
Function	Receptor-regulated SMAD (R-SMAD) that is an intracellular signal transducer and transcriptional modulator activated by TGF-beta (transforming growth factor) and activin type 1 receptor kinases. Binds the TGF-beta element in the promoter region of many genes that are regulated by TGF-beta and, on formation of the SMAD3/SMAD4 complex, activates transcription. Also can form a SMAD3/SMAD4/JUN/FOS complex at the AP-1/SMAD site to regulate TGF-beta-mediated transcription. Has an inhibitory effect on wound healing probably by modulating both growth and migration of primary keratinocytes and by altering the TGF-beta mediated chemotaxis of monocytes. This effect on wound healing appears to be hormone-sensitive. Regulator of chondrogenesis and osteogenesis and inhibits early healing of bone fractures. Positively regulates PDK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator.
Cellular Location	Cytoplasm. Nucleus. Note=Cytoplasmic and nuclear in the absence of TGF-beta. On TGF-beta stimulation, migrates to the nucleus when complexed with SMAD4 (PubMed:15799969). Through the action of the phosphatase PPM1A, released from the SMAD2/SMAD4 complex, and exported out of the nucleus by interaction with RANBP1 (PubMed:16751101, PubMed:19289081). Co-localizes with LEMD3 at the nucleus inner membrane (PubMed:15601644). MAPK-mediated phosphorylation appears to have no effect on nuclear import (PubMed:19218245). PDK1 prevents its nuclear translocation in response to TGF-beta (PubMed:17327236).
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.

IMAGES



WB (Western Blot)

The anti-Phospho-SMAD3-S213 Pab is used in Western blot to detect Phospho-SMAD3-S213 in Ramos tissue lysate



IHC (Immunohistochemistry)

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



WB (Western Blot)

All lanes : Anti-SMAD3(S213) Antibody at1:1000 dilution Lane 1: HACAT whole cell lysateLane 2: HT-1080 whole cell lysate Lane 3: Helawhole cell lysate Lysates/proteins at 20 ?g perlane. Secondary Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/10000 dilution.Predicted band size : 48, 43 kDa Blocking/Dilution buffer: 5% NFDm/TBST.

ADDITIONAL INFORMATION

Related Product Information for anti-SMAD3 antibody	SMAD3, a receptor regulated SMAD (R-SMAD) is a transcriptional modulator activated by TGF-beta (transforming growth factor) and activin type 1 receptor kinase. SMAD3 is estimated to account for at least 80% of all TGF-beta-mediated response. Activated type I receptor phosphorylates receptor-activated SMADS (RSMADS) at their c-terminal two extreme serines in the SSXS motif. The phosphorylated R-SMAD translocate into nucleus, where they regulate transcription of target genes. SMAD3 signal transduction appears to be important in the rgulation of muscle-specific genes. Loss of SMAD3 is a feature of pediatric T-cell lymphoblastic leukemia, while upregulation of SMAD3 may be responsible for TGFB hyperresponsiveness observed in scleroderma.
Product Categories/Family for anti-SMAD3 antibody	Cancer; Developmental Biology; Metabolism; Neuroscience; Signal Transduction; Phospho Antibodies
References	Imoto, S., et al., FEBS Lett. 579(13):2853-2862 (2005). Dubrovskaja, A., et al., Oncogene 24(14):2289-2297 (2005). Furumatsu, T., et al., J. Biol. Chem. 280(9):8343-8350 (2005). Kobayashi, T., et al., Biochem. Biophys. Res. Commun. 327(2):393-398 (2005). Kamaraju, A.K., et al., J. Biol. Chem. 280(2):1024-1036 (2005).

NCBI AND UNIPROT INFORMATION

NCBI GI #	223029440
NCBI GeneID	4088
NCBI Accession #	NP_001138574.1; NP_001138575.1; NP_001138576.1; NP_005893.1
NCBI GenBank Nucleotide #	NM_001145102.1
UniProt Accession #	P84022; O09064; O09144; O14510; O35273; Q92940; Q93002; A8K4B6; B7Z4Z5; B7Z6M9; B7Z9Q2; F5H383
NCBI Official Full Name	mothers against decapentaplegic homolog 3 isoform 2
NCBI Official Synonym Full Names	SMAD family member 3
NCBI Official Symbol	SMAD3
NCBI Official Synonym Symbols	LDS3; LDS1C; MADH3; JV15-2; HSPC193; HsT17436
NCBI Protein Information	mothers against decapentaplegic homolog 3
UniProt Protein Name	Mothers against decapentaplegic homolog 3

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

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/phospho-smad3-s213-antibody-western-blot-immunohistochemistry-elisa/285661>