

Anti-MADH7/SMAD7 antibody ab216428

★★★★★ [1 Abreviews](#) [37 References](#) [10 Images](#)

Overview

Product name	Anti-MADH7/SMAD7 antibody
Description	Rabbit polyclonal to MADH7/SMAD7
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, WB, IHC-P, Flow Cyt
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human MADH7/SMAD7 aa 1-50 conjugated to keyhole limpet haemocyanin. The exact sequence is proprietary. Database link: Q15105
Positive control	IHC-P: Rat kidney and lung tissue, mouse kidney tissue. WB: Mouse lung, lymph, spleen, stomach, large intestine and placenta lysates. Human HepG2 cell line. Rat cerebrum. ICC: U-2OS human cells. Flow Cyt: SH-SY5Y human cell line.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Proclin 300 Constituents: 50% Glycerol (glycerin, glycerine), 1% BSA, 48.98% TBS, 1X
Purity	Protein A purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab216428 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/100.
WB	★★★★★ (1)	1/100 - 1/1000. Predicted molecular weight: 46 kDa.
IHC-P		1/100 - 1/500.
Flow Cyt		1/200.

Target

Function

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.

Tissue specificity

Ubiquitous with higher expression in the lung and vascular endothelium.

Involvement in disease

Colorectal cancer 3

Sequence similarities

Belongs to the dwarfin/SMAD family.
Contains 1 MH1 (MAD homology 1) domain.
Contains 1 MH2 (MAD homology 2) domain.

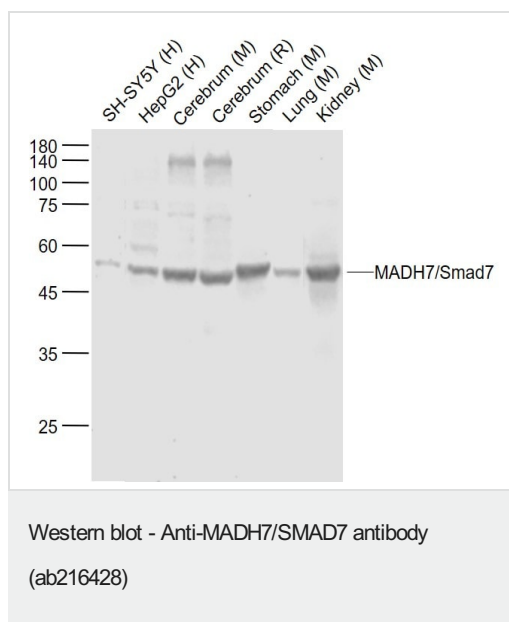
Post-translational modifications

Phosphorylation on Ser-249 does not affect its stability, nuclear localization or inhibitory function in TGFB signaling; however it affects its ability to regulate transcription (By similarity).
Phosphorylated by PDPK1.
Ubiquitinated by WWP1 (By similarity). Polyubiquitinated by RNF111, which is enhanced by AXIN1 and promotes proteasomal degradation. In response to TGF-beta, ubiquitinated by SMURF1; which promotes its degradation.
Acetylation prevents ubiquitination and degradation mediated by SMURF1.

Cellular localization

Nucleus. Cytoplasm. Interaction with NEDD4L or RNF111 induces translocation from the nucleus to the cytoplasm (PubMed:16601693). TGF-beta stimulates its translocation from the nucleus to the cytoplasm. PDPK1 inhibits its translocation from the nucleus to the cytoplasm in response to TGF-beta (PubMed:17327236).

Images



All lanes : Anti-MADH7/SMAD7 antibody (ab216428) at 1/200 dilution

Lane 1 : SHSY5Y human cells

Lane 2 : HepG2 cells

Lane 3 : Mouse cerebrum

Lane 4 : Rat cerebrum

Lane 5 : Mouse stomach

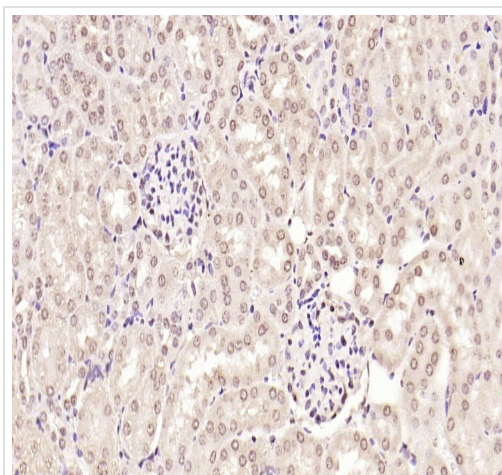
Lane 6 : Mouse lung

Lane 7 : Mouse kidney

Secondary

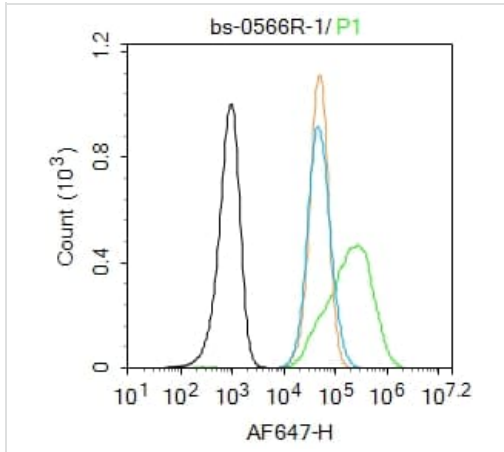
All lanes : Conjugated Secondary at 1/200 dilution

Predicted band size: 46 kDa



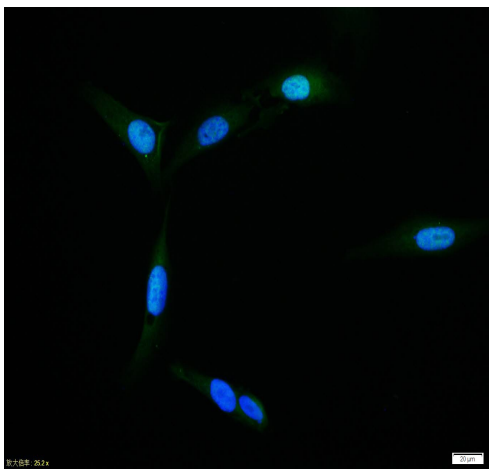
Immunohistochemical analysis of formalin-fixed, paraffin-embedded mouse kidney tissue labeling MADH7/SMAD7 with ab216428 at 1/200 dilution followed by conjugation to the secondary antibody and DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MADH7/SMAD7 antibody (ab216428)

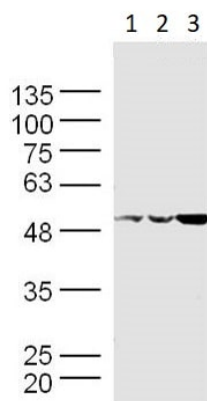


Flow Cytometry - Anti-MADH7/SMAD7 antibody
(ab216428)

Flow cytometry analysis of SH-SY5Y cells labelled for MADH7/ SMAD7 using ab216428 at 1/200 dilution. Acquisition of 20,000 events were performed. Cells stained with primary antibody (green), isotype control (orange).



Immunocytochemistry/ Immunofluorescence - Anti-
MADH7/SMAD7 antibody (ab216428)



Western blot - Anti-MADH7/SMAD7 antibody
(ab216428)

All lanes : Anti-MADH7/SMAD7 antibody (ab216428) at 1/300 dilution

Lane 1 : Mouse lung tissue lysate

Lane 2 : Mouse placenta tissue lysate

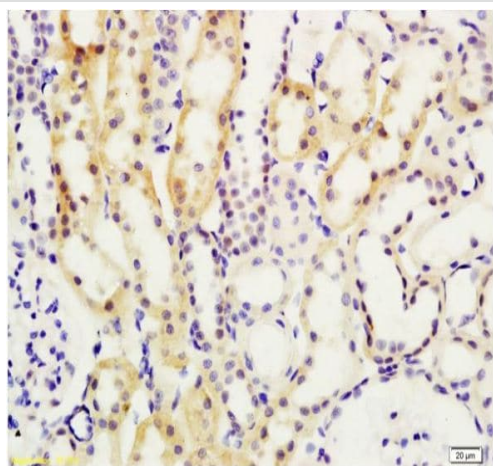
Lane 3 : Mouse large intestine tissue lysate

Secondary

All lanes : Conjugated secondary antibody at 1/20000 dilution

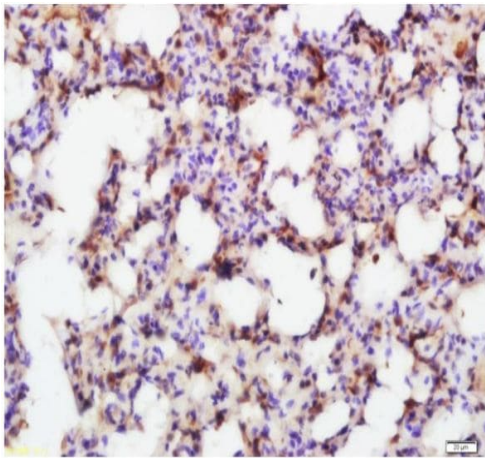
Predicted band size: 46 kDa

Primary incubation: 4°C overnight followed by conjugated secondary antibody incubation for 60 min at 37°C.



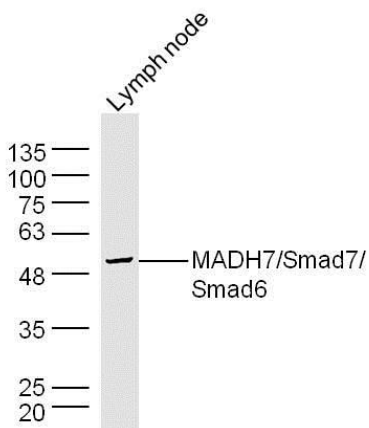
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MADH7/SMAD7 antibody
(ab216428)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded rat kidney tissue labeling MADH7/SMAD7 with ab216428 at 1/200 dilution followed by conjugation to the secondary antibody and DAB staining.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MADH7/SMAD7 antibody (ab216428)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded rat lung tissue labeling MADH7/SMAD7 with ab216428 at 1/600 dilution followed by conjugation to the secondary antibody for 20 minutes and DAB staining. Prior to addition of the primary antibody, antigen retrieval was carried out by boiling in sodium citrate buffer (pH6.0) for 15min. Endogenous peroxidase was blocked by 3% hydrogen peroxide for 20 minutes and blocking buffer (normal goat serum) added at 37°C for 30min.



Western blot - Anti-MADH7/SMAD7 antibody (ab216428)

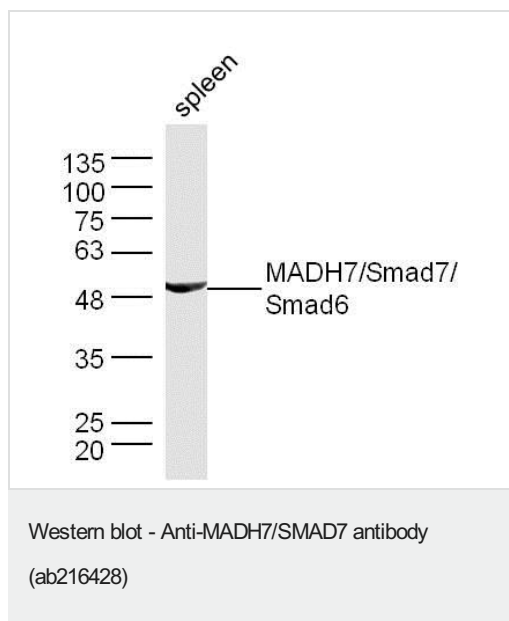
Anti-MADH7/SMAD7 antibody (ab216428) at 1/300 dilution + mouse lymph node at 30 µg

Secondary

IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 46 kDa

Observed band size: 50 kDa

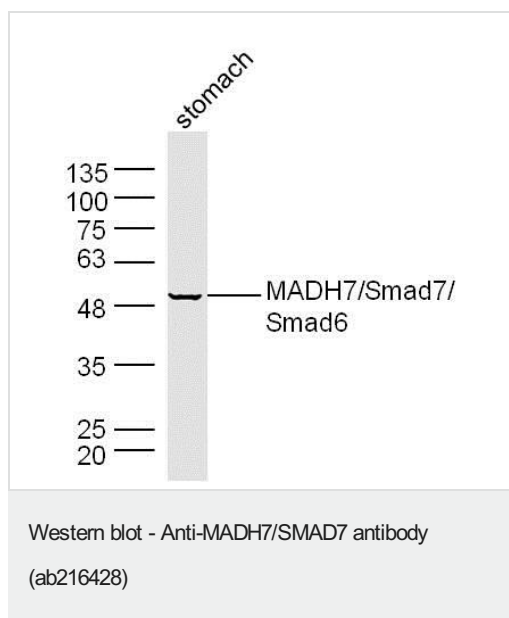


Anti-MADH7/SMAD7 antibody (ab216428) at 1/300 dilution +
Mouse spleen lysate at 30 µg

Secondary

IRDye800CW Goat Anti-Rabbit IgG at 1/2000 dilution

Predicted band size: 46 kDa



Anti-MADH7/SMAD7 antibody (ab216428) at 1/300 dilution +
Mouse stomach lysate at 30 µg

Secondary

IRDye800CW Goat Anti-Rabbit IgG at 1/2000 dilution

Predicted band size: 46 kDa

Observed band size: 50 kDa

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