

Datasheet for ABIN3044112
anti-SMAD2 antibody (N-Term)



[Go to Product page](#)

4 Images

2 Publications

Overview

Quantity:	100 µg
Target:	SMAD2
Binding Specificity:	AA 94-112, N-Term
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunocytochemistry (ICC)

Product Details

Purpose:	Rabbit IgG polyclonal antibody for Mothers against decapentaplegic homolog 2(SMAD2) detection. Tested with WB, IHC-P, ICC in Human,Mouse,Rat.
Immunogen:	A synthetic peptide corresponding to a sequence at the N-terminus of human Smad2(94-112aa DQWDTTGLYSFSEQTRSLD), identical to the related rat and mouse sequences.
Sequence:	DQWDTTGLYS FSEQTRSLD
Isotype:	IgG
Cross-Reactivity (Details):	Predicted Cross Reactivity: mouse No cross reactivity with other proteins. Predicted Cross Reactivity: Species predicted to be fit for the product based on sequence similarities.
Characteristics:	Rabbit IgG polyclonal antibody for Mothers against decapentaplegic homolog 2(SMAD2)

Product Details

detection. Tested with WB, IHC-P, ICC in Human, Mouse, Rat.

Gene Name: SMAD family member 2

Protein Name: Mothers against decapentaplegic homolog 2

Purification: Immunogen affinity purified.

Target Details

Target: SMAD2

Alternative Name: SMAD2 ([SMAD2 Products](#))

Background: Smad2 (Mothers against decapentaplegic homolog 2), also known as MADR2, MADH2, SMAD family member 2 or SMAD2, is a protein that in humans is encoded by the SMAD2 gene. MAD homolog 2 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. Eppert et al. (1996) mapped the MADR2 gene close to DPC4 at 18q21, a region which is frequently deleted in colorectal cancers. Riggins et al. (1996) mapped the human MADH2 gene to 18q21. Nakao et al. (1997) refined the localization of the SMAD2 gene to 18q21.1, approximately 3 Mb proximal to DPC4, by fluorescence in situ hybridization. SMAD2 mediates the signal of the transforming growth factor (TGF)-beta, and thus regulates multiple cellular processes, such as cell proliferation, apoptosis, and differentiation. This protein is recruited to the TGF-beta receptors through its interaction with the SMAD anchor for receptor activation (SARA) protein. In response to TGF-beta signal, this protein is phosphorylated by the TGF-beta receptors.

Synonyms: hMAD 2 antibody|hMAD-2 antibody|hSMAD2 antibody|JV18 1 antibody|JV18 antibody|JV18-1 antibody|JV181 antibody|MAD antibody|MAD homolog 2 antibody|MAD Related Protein 2 antibody|Mad-related protein 2 antibody|MADH2 antibody|MADR2 antibody|MGC22139 antibody|MGC34440 antibody|Mothers Against Decapentaplegic Homolog 2 antibody|mothers against DPP homolog 2 antibody|OTTHUMP00000163489 antibody|Sma and Mad related protein 2 antibody|SMAD 2 antibody|SMAD antibody|SMAD family member 2 antibody|SMAD, mothers against DPP homolog 2 antibody|SMAD2 antibody|SMAD2_HUMAN antibody

UniProt: [Q15796](#)

Pathways: [Cell Division Cycle](#), [Hormone Transport](#), [Chromatin Binding](#), [Protein targeting to Nucleus](#)

Application Details

Application Notes: WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, Rat, Predicted Species: Mouse, The detection limit for SMAD2 is approximately 2.5 ng/lane under reducing conditions.
IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Predicted Species: Mouse, Rat, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections.
ICC: Concentration: 0.5-1 µg/mL, Tested Species: Human, Predicted Species: Mouse, Rat
Notes: Tested Species: Species with positive results. Predicted Species: Species predicted to be fit for the product based on sequence similarities. Other applications have not been tested.
Optimal dilutions should be determined by end users.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P) and ICC.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg Thimerosal, 0.05 mg Sodium azide.

Preservative: Thimerosal (Merthiolate), Sodium azide

Precaution of Use: This product contains Sodium azide and Thimerosal (Merthiolate): POISONOUS AND HAZARDOUS SUBSTANCES which should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C/-20 °C

Storage Comment: At -20°C for one year. After reconstitution, at 4°C for one month.
It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

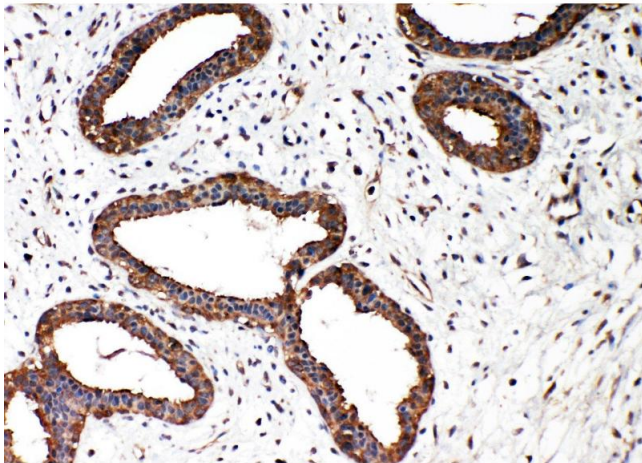
Expiry Date: 12 months

Publications

Product cited in: Whiteland, Nicholls, Shimeld, Easty, Williams, Hill: "Immunohistochemical detection of T-cell

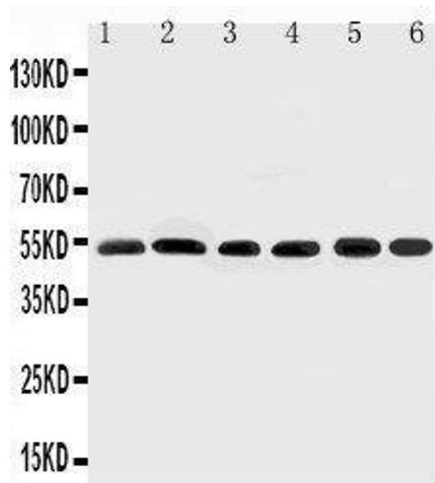
subsets and other leukocytes in paraffin-embedded rat and mouse tissues with monoclonal antibodies." in: **The journal of histochemistry and cytochemistry : official journal of the Histochemistry Society**, Vol. 43, Issue 3, pp. 313-20, (1995) ([PubMed](#)).

Images



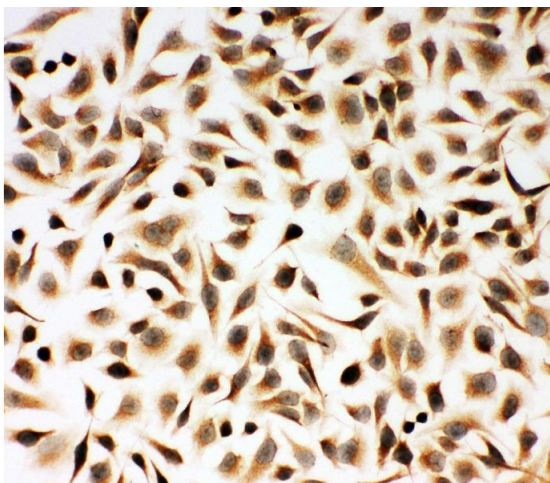
Immunohistochemistry

Image 1. Anti-Smad2 antibody, IHC(P) IHC(P): Human Mammary Cancer Tissue



Western Blotting

Image 2. Anti-Smad2 antibody, Western blotting Lane 1: Rat Brain Tissue Lysate Lane 2: HELA Cell Lysate Lane 3: SMMC Cell Lysate Lane 4: JURKAT Cell Lysate Lane 5: U87 Cell Lysate Lane 6: MCF-7 Cell Lysate



Immunohistochemistry

Image 3. Anti-Smad2 antibody, ICC ICC: HELA Cell

Images

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN3044112.