

# [KO Validated] Smad1 Rabbit pAb

Catalog No.: A21734 **KO** Validated

## Basic Information

### Observed MW

60kDa

### Calculated MW

52kDa

### Category

Primary antibody

### Applications

WB, IHC-P, IF/ICC, ELISA

### Cross-Reactivity

Human, Mouse, Rat

## Background

The protein encoded by this gene 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. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein mediates the signals of the bone morphogenetic proteins (BMPs), which are involved in a range of biological activities including cell growth, apoptosis, morphogenesis, development and immune responses. In response to BMP ligands, this protein can be phosphorylated and activated by the BMP receptor kinase. The phosphorylated form of this protein forms a complex with SMAD4, which is important for its function in the transcription regulation. This protein is a target for SMAD-specific E3 ubiquitin ligases, such as SMURF1 and SMURF2, and undergoes ubiquitination and proteasome-mediated degradation. Alternatively spliced transcript variants encoding the same protein have been observed.

## Recommended Dilutions

**WB** 1:500 - 1:1000**IHC-P** 1:50 - 1:200**IF/ICC** 1:50 - 1:200

**ELISA** Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.

## Immunogen Information

### Gene ID

4086

### Swiss Prot

Q15797

### Immunogen

Recombinant protein (or fragment). This information is considered to be commercially sensitive.

### Synonyms

BSP1; JV41; BSP-1; JV4-1; MADH1; MADR1; d1

## Contact

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## Product Information

### Source

Rabbit

### Isotype

IgG

### Purification

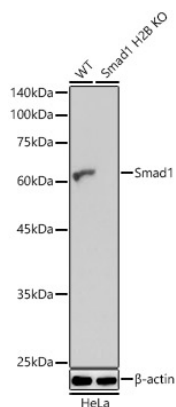
Affinity purification

### Storage

Store at -20°C. Avoid freeze / thaw cycles.

Buffer: PBS containing 50% glycerol, preserved with proclin300 or sodium azide (as specified on the Certificate of Analysis), pH 7.3.

## Validation Data



Western blot analysis of lysates from wild type (WT) and Smad1 knockout (KO) HeLa cells, using [KO Validated] Smad1 Rabbit pAb (A21734) at 1:1000 dilution.

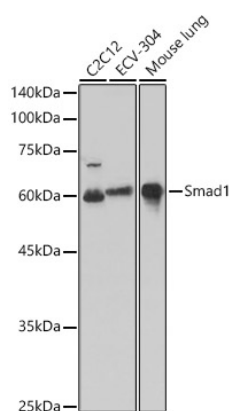
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.

Lysates/proteins: 25µg per lane.

Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

Exposure time: 10s.



Western blot analysis of various lysates using [KO Validated] Smad1 Rabbit pAb (A21734) at 1:1000 dilution.

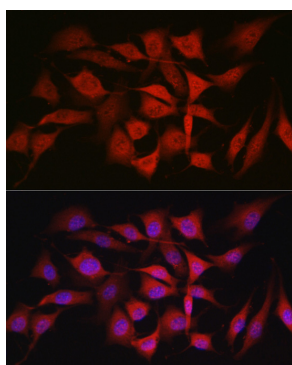
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.

Lysates/proteins: 25µg per lane.

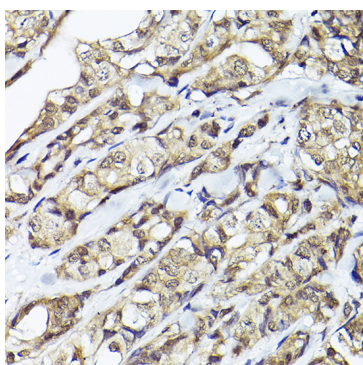
Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

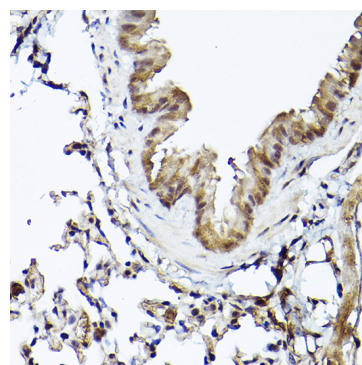
Exposure time: 10s.



Immunofluorescence analysis of NIH/3T3 cells using Smad1 Rabbit pAb (A21734) at dilution of 1:50 (40x lens). Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



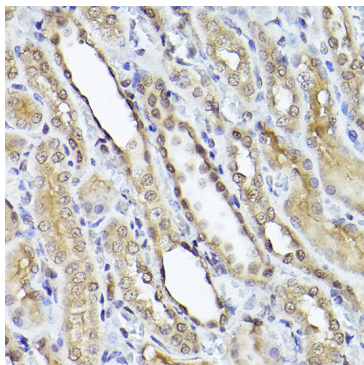
Immunohistochemistry analysis of paraffin-embedded Human breast cancer using Smad1 Rabbit pAb (A21734) at dilution of 1:50 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate buffer (pH 6.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Mouse lung using Smad1 Rabbit pAb (A21734) at dilution of 1:50 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate buffer (pH 6.0) prior to IHC staining.

## Validation Data

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Immunohistochemistry analysis of paraffin-embedded Rat kidney using Smad1 Rabbit pAb (A21734) at dilution of 1:50 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate buffer (pH 6.0) prior to IHC staining.