

Product datasheet

Anti-SMAD1/5/9 antibody ab66737

★★★★☆ [3 Abreviews](#) [36 References](#) [3 Images](#)

Overview

| | |
|----------------------------|---|
| Product name | Anti-SMAD1/5/9 antibody |
| Description | Rabbit polyclonal to SMAD1/5/9 |
| Host species | Rabbit |
| Tested applications | Suitable for: ICC/IF, WB, IHC-P |
| Species reactivity | Reacts with: Mouse, Rat, Dog, Human, Xenopus laevis, Zebrafish Predicted to work with: Rabbit, Horse, Chicken, Guinea pig, Cow, Cat, Pig, Chimpanzee, Drosophila melanogaster  |
| Immunogen | Synthetic peptide within Human SMAD1/5/9 (C terminal). The exact sequence is proprietary. Sequence: FVKGWGAEYHRQDVTSTPCWIEIHLHGPLQWLDKVLTKM GSPHNPISSVS Database link: Q15797  Run BLAST with  Run BLAST with |
| Positive control | Jurkat cell lysate |

Properties

| | |
|-----------------------------|---|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. |
| Storage buffer | Preservative: 0.09% Sodium azide Constituents: 2% Sucrose, PBS |
| Purity | Protein A purified |
| Clonality | Polyclonal |
| Isotype | IgG |

Applications

The **Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab66737 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) | Use a concentration of 1 µg/ml. |
| WB | ★★★★☆ (2) | Use a concentration of 0.625 µg/ml. Detects a band of approximately 62 kDa (predicted molecular weight: 52 kDa). Good results were obtained when blocked with 5% non-fat dry milk in 0.05% PBS-T. |
| IHC-P | | Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. |

Target

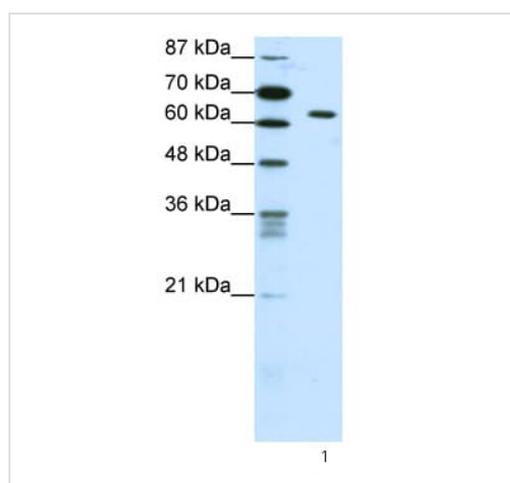
Relevance

SMADs are members of the MAD-related family of molecules. MAD-related proteins are a family of intracellular proteins that are essential components in the signaling pathways of the serine/threonine kinase receptors of the transforming growth factor beta superfamily. SMADs can be divided into receptor-regulated SMADs, common-mediator SMAD and inhibitory SMADs. SMAD1, SMAD5 and SMAD9 have high degrees of homology. SMAD8 and SMAD9 are used as alternate names for the same protein. Human SMAD1 is a 465 amino acid protein, human SMAD5 is a 465 amino acid and human SMAD9 is a 430 amino acid protein.

Cellular localization

Cytoplasmic and Nuclear

Images



Western blot - Anti-SMAD1/5/9 antibody (ab66737)

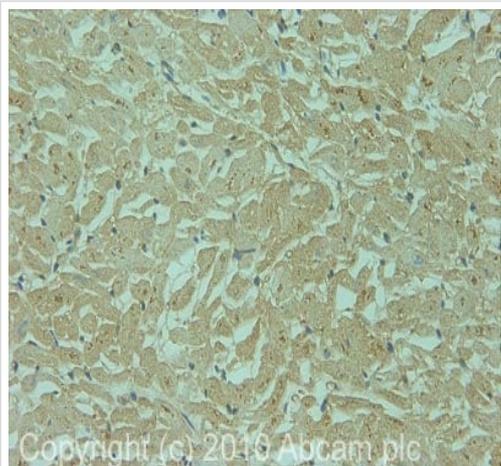
Anti-SMAD1/5/9 antibody (ab66737) at 0.625 µg/ml + Jurkat cell lysate at 10 µg

Secondary

HRP conjugated anti-Rabbit IgG at 1/50000 dilution

Predicted band size: 52 kDa

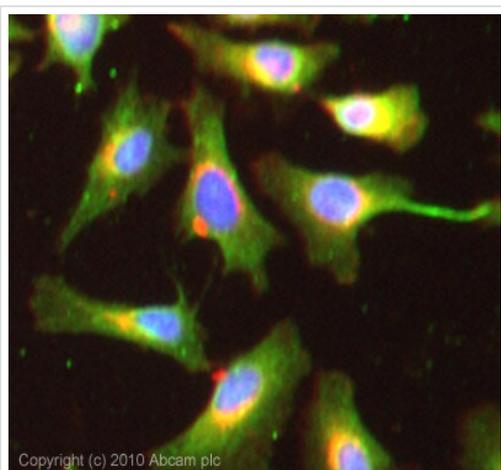
Observed band size: 62 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SMAD1/5/9 antibody (ab66737)

IHC image of ab66737 staining in human heart formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab66737, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunocytochemistry/ Immunofluorescence - Anti-SMAD1/5/9 antibody (ab66737)

ICC/IF image of ab66737 stained HeLa cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab66737, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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