

# SMAD9 Rabbit pAb

Catalog # AP96795

## Product Information

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| <b>Application</b>                      | WB, IHC-P, IHC-F, IF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Primary Accession</b>                | <a href="#">Q15198</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Other Accession</b>                  | <a href="#">Q15198</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Host</b>                             | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Clonality</b>                        | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Calculated MW</b>                    | 52493                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Physical State</b>                   | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Immunogen</b>                        | KLH conjugated synthetic peptide derived from human SMAD9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Epitope Specificity</b>              | 361-467/467                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Isotype</b>                          | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Purity</b>                           | affinity purified by Protein A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Buffer</b>                           | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>SIMILARITY</b>                       | Belongs to the dwarfin/SMAD family. Contains 1 MH1 (MAD homology 1) domain. Contains 1 MH2 (MAD homology 2) domain.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>SUBUNIT</b>                          | Interaction with the co-SMAD SMAD4. Interacts with PEBP2-alpha subunit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Post-translational modifications</b> | Phosphorylated on serine by BMP (bone morphogenetic proteins) type 1 receptor kinase.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>DISEASE</b>                          | Defects in SMAD9 may be a cause of primary pulmonary hypertension (PPH1) [MIM:178600]. A rare disorder characterized by plexiform lesions of proliferating endothelial cells in pulmonary arterioles. The lesions lead to elevated pulmonary arterial pressure, right ventricular failure, and death. The disease can occur from infancy throughout life and it has a mean age at onset of 36 years. Penetrance is reduced. Although familial PPH1 is rare, cases secondary to known etiologies are more common and include those associated with the appetite-suppressant drugs. |
| <b>Important Note</b>                   | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Background Descriptions</b>          | SMAD9 is a member of the MAD-related family of molecules. MAD-related proteins are a recently identified family of intracellular proteins that are thought to be essential components in the signaling pathways of the serine/threonine kinase receptors of the transforming growth factor beta superfamily.                                                                                                                                                                                                                                                                      |

## Additional Information

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| <b>Gene ID</b>     | 4093                                                                                                                                                                                                                                                                                             |
| <b>Other Names</b> | SMAD9_HUMAN; SMAD9; MAD homolog 9; Mothers against DPP homolog 9; Madh6; SMAD family member 9 (SMAD 9   Smad9); MADH9; SMAD8; SMAD9_MOUSE; Madh8; SMAD9_RAT; SMAD family member 9; MAD, mothers against decapentaplegic homolog 9 (Drosophila); SMAD, mothers against DPP homolog 9 (Drosophila) |

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| <b>Dilution</b> | WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=3<br>µg/Test                                                                                                                |
| <b>Storage</b>  | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Protein Information

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| <b>Name</b>              | SMAD9 ( <a href="#">HGNC:6774</a> )                                                                                                                     |
| <b>Function</b>          | Transcriptional modulator activated by BMP (bone morphogenetic proteins) type 1 receptor kinase. SMAD9 is a receptor- regulated SMAD (R-SMAD).          |
| <b>Cellular Location</b> | Cytoplasm. Nucleus. Note=In the cytoplasm in the absence of ligand. Migration to the nucleus when complexed with SMAD4 (By similarity).                 |
| <b>Tissue Location</b>   | Expressed in heart, brain, placenta, lung, skeletal muscle, prostate, testis, ovary and small intestine. Also expressed in fetal brain, lung and kidney |

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