

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human Smad9 in direct ELISAs. In direct ELISAs, approximately 5% cross-reactivity with recombinant human Smad1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Smad9 Ala158-Ser223 Accession # O15198
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

SMAD9 (SMA protein and Mothers Against Decapentaplegic 9; also SMAD8 and MAHD6) is a 55-60 kDa R-Group member of the dwarfin/SMAD family of proteins. It is expressed by BMP-responsive cells, and serves to transmit information from the BMP receptor (BMPR) to the nucleus. In particular, following BMPR activation, SMAD9 is phosphorylated by the BMPR on its C-terminus, promoting heterodimerization with SMAD4 and its translocation into the nucleus. Here, SMAD9 binds to DNA and participates in gene activation. Human SMAD9 is 467 amino acids (aa) in length. It contains a DNA-binding domain termed MH1 (aa 16-140) plus a receptor/transcription factor binding domain termed MH2 (aa 273-467). The C-terminus contains two phosphorylation sites at Ser465 and Ser467. There is one splice form that shows a deletion of aa 224-260. Over aa 158-223, human and mouse SMAD9 share 82% identity in amino acid sequence.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.