

Smad7 Antibody

Rabbit Polyclonal Antibody Catalog # ABV10506

Specification

Smad7 Antibody - Product Information

Application
Primary Accession
Other Accession
Reactivity
Host
Clonality
Isotype

Human, Mouse, Rat Rabbit Polyclonal Rabbit IgG 46426

AAB81354.1

WB

015105

Smad7 Antibody - Additional Information

Gene ID 4092

Calculated MW

Application & Usage

Western blotting (0.5-4 μ g/ml). However, the optimal concentrations should be determined individually. Other applications have not been determined. The antibody detects ~46 kDa Smad-7 from samples of human, mouse, and rat origins. Reactivity to other species has not been determined.

Other Names

SMAD7, MADH7, MADH8, Smad7; hSMAD7; SMAD family member 7

Target/Specificity

Smad7

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

 $100~\mu g$ (0.5 mg/ml) affinity purified rabbit anti-Smad7 polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA, and 0.01% thimerosal.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions



Precautions

Smad7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Smad7 Antibody - Protein Information

Name SMAD7

Synonyms MADH7, MADH8

Function

Antagonist of signaling by TGF-beta (transforming growth factor) type 1 receptor superfamily members; has been shown to inhibit TGF-beta (Transforming growth factor) and activin signaling by associating with their receptors thus preventing SMAD2 access (PubMed:21791611. Functions as an adapter to recruit SMURF2 to the TGF-beta receptor complex. Also acts by recruiting the PPP1R15A-PP1 complex to TGFBR1, which promotes its dephosphorylation. Positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator.

Cellular Location

Nucleus. Cytoplasm. Note=Interaction with NEDD4L or RNF111 induces translocation from the nucleus to the cytoplasm (PubMed:16601693). TGF-beta stimulates its translocation from the nucleus to the cytoplasm. PDPK1 inhibits its translocation from the nucleus to the cytoplasm in response to TGF-beta (PubMed:17327236)

Tissue Location

Ubiquitous with higher expression in the lung and vascular endothelium

Smad7 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Smad7 Antibody - Images

Smad7 Antibody - Background

Smad proteins, the mammalian homologs of the Drosophila Mothers against dpp (Mad), have been implicated as downstream effectors of TGF β /BMP signaling. Smad1, Smad5, and Smad8 are effectors of BMP2 and BMP4 function while Smad2 and Smad3 are involved in TGF- β and activin-mediated growth modulation. Smad4 has been shown to mediate all of the above activities thro μ gh interaction with various Smad family members. Smad6 and Smad7 regulate the response to activin/TGF β signaling by interfering with TGF β -mediated phosphorylation of other Smad family members.