10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Smad7 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10506

Specification

Smad7 Antibody - Product Information

Application	**WB**
Primary Accession	O15105
Other Accession	AAB81354.1
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**46426**

Smad7 Antibody - Additional Information

Gene ID 4092

Application & Usage	**Western blotting (0.5-4 µg/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 µg (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 TGFβ/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 μgh interaction with various Smad family members. Smad6 and Smad7 regulate the response to activin/TGFβ signaling by interfering with TGFβ-mediated phosphorylation of other Smad family members.