

Smad7 (Acetyl Lys70) Rabbit pAb

CatalogNo: YK0168

Key Features

Host Species

- Rabbit

Reactivity

- Human,Mouse,Rat

Applications

- WB,IHC

MW

- 47kD (Calculated)

Isotype

- IgG

Storage

Storage* -15°C to -25°C/1 year(Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-2000

IHC 1:50-300

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen Synthesized peptide derived from human Smad7 (Acetyl Lys70)

Specificity This antibody detects endogenous levels of Human,Mouse,Rat Smad7 (Acetyl Lys70).The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):GAKGH

Target Information

Gene name SMAD7 MADH7 MADH8

Protein Name Smad7 (Acetyl Lys70)

| Organism | Gene ID | UniProt ID |
|----------|-------------------------|--------------------------|
| Human | 4092 ; | O15105 ; |
| Mouse | 17131 ; | O35253 ; |
| Rat | 81516 ; | O88406 ; |

Cellular Localization

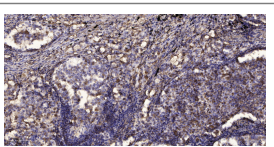
Nucleus . Cytoplasm . Interaction with NEDD4L or RNF111 induces translocation from the nucleus to the cytoplasm (PubMed:16601693). TGF-beta stimulates its translocation from the nucleus to the cytoplasm. PDPK1 inhibits its translocation from the nucleus to the cytoplasm in response to TGF-beta (PubMed:17327236).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

Tissue specificity Ubiquitous with higher expression in the lung and vascular endothelium.

Function

Disease:Genetic variations in SMAD7 influence susceptibility to colorectal cancer type 3 (CRC3) [MIM:612229]. Colorectal cancer consists of tumors or cancer of either the colon or rectum or both. Cancers of the large intestine are the second most common form of cancer found in males and females. Symptoms include rectal bleeding, occult blood in stools, bowel obstruction and weight loss. Treatment is based largely on the extent of cancer penetration into the intestinal wall. Surgical cures are possible if the malignancy is confined to the intestine. Risk can be reduced when following a diet which is low in fat and high in fiber.,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. 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.,induction:By TGF-beta.,PTM:Acetylation prevents ubiquitination and degradation mediated by SMURF1.,PTM:Phosphorylation on Ser-249 does not affect its stability, nuclear localization or inhibitory function in TGF-beta signaling; however it affects its ability to regulate transcription.,PTM:Polyubiquitinated by RNF111, which is enhanced by AXIN1 and promotes proteasomal degradation. In response to TGF-beta, ubiquitinated by SMURF1; which promotes its degradation.,similarity:Belongs to the dwarfin/SMAD family.,similarity:Contains 1 MH1 (MAD homology 1) domain.,similarity:Contains 1 MH2 (MAD homology 2) domain.,subcellular location:Interaction with NEDD4L or RNF111 induces translocation from the nucleus to the cytoplasm.,subunit:Interacts with TGF-beta type I receptor. Interacts with COPS5. Interacts with NEDD4L. Interacts with STAMBP. Interacts with RNF111, AXIN1 and AXIN2. Interacts with PPP1R15A. Interacts (via MH2 domain) with EP300. Interacts with SMURF2.,tissue specificity:Ubiquitous with higher expression in the lung and vascular endothelium.,

Validation Data



Immunohistochemical analysis of paraffin-embedded human Squamous cell carcinoma of lung. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).

| Contact information

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**Smad7 (Acetyl
Lys70) Rabbit pAb**

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