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Smad7 Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6753C

Specification

Smad7 Antibody (Center) - Product Information

Application	**IF, WB, IHC-P,E**
Primary Accession	O15105
Other Accession	O88406
Reactivity	**Human**
Predicted	**Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**195-224**

Smad7 Antibody (Center) - Additional Information

Gene ID 4092

Other Names
Mothers against decapentaplegic homolog 7, MAD homolog 7, Mothers against DPP homolog 7, Mothers against decapentaplegic homolog 8, MAD homolog 8, Mothers against DPP homolog 8, SMAD family member 7, SMAD 7, Smad7, hSMAD7, SMAD7, MADH7, MADH8

Target/Specificity
This Smad7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 195-224 amino acids from the Central region of human Smad7.

Dilution
IF~~1:10~50
WB~~1:1000
IHC-P~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Smad7 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Smad7 Antibody (Center) - 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)

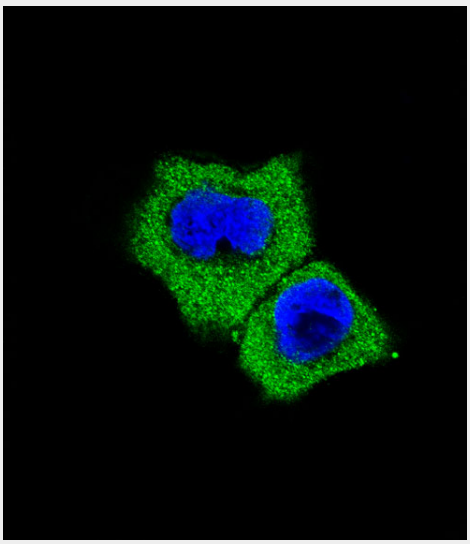
Tissue Location
Ubiquitous with higher expression in the lung and vascular endothelium

Smad7 Antibody (Center) - 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

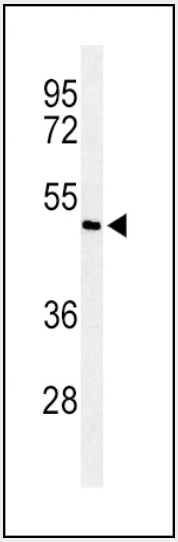
Smad7 Antibody (Center) - Images



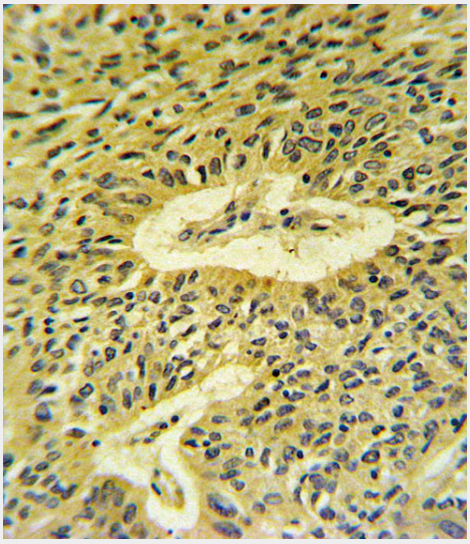
"Fluorescent confocal image of A431 cell stained with Smad7 Antibody (Center)(Cat#AP6753c).

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A431 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with Smad7 primary antibody (1:25, 1 h at 37℃). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37℃). Nuclei were counterstained with DAPI (blue) (10 µg/ml, 10 min).Smad7 immunoreactivity is localized to cytoplasm significantly. "



Western blot analysis of Smad7 Antibody (Center) (Cat. #AP6753c) in ZR-75-1 cell line lysates (35ug/lane). Smad7 (arrow) was detected using the purified Pab.



Smad7 Antibody (Center) (Cat. #AP6753c) IHC analysis in formalin fixed and paraffin embedded lung carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the Smad7 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

Smad7 Antibody (Center) - Background

Smad7 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 super family.

Smad7 Antibody (Center) - References

Hirata,H., et.al., Cancer 115 (19), 4488-4503 (2009)