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SMAD7 Antibody (aa36-50)

Rabbit Polyclonal Antibody

Catalog # ALS11254

Specification

SMAD7 Antibody (aa36-50) - Product Information

Application	**WB, IHC-P**
Primary Accession	O15105
Reactivity	**Human, Monkey, Bovine, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**46kDa KDa**
Dilution	**WB~~1:1000** **IHC-P~~N/A**

SMAD7 Antibody (aa36-50) - 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
Two synthetic peptides corresponding to aa 12-18 (RLWRSRAPGGEDEEEGAG) and amino acids 36-50 (ELRGEGATDSRAHGA) of human SMAD7; GenBank Accession no. AAB81354.1. This sequence is 100% or highly conserved between human and multiple species.

Reconstitution & Storage
Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions
SMAD7 Antibody (aa36-50) is for research use only and not for use in diagnostic or therapeutic procedures.

SMAD7 Antibody (aa36-50) - 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

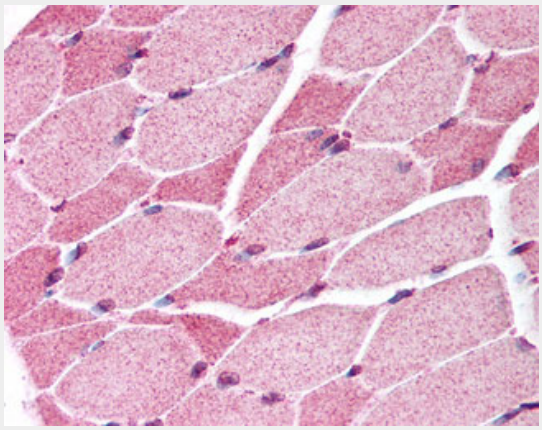
Volume
100 µl

SMAD7 Antibody (aa36-50) - 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 (aa36-50) - Images



Anti-SMAD7 antibody IHC of human skeletal muscle.

SMAD7 Antibody (aa36-50) - Background

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. Positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator (By

similarity).

SMAD7 Antibody (aa36-50) - References

Hayashi H.,et al.Cell 89:1165-1173(1997).
Topper J.N.,et al.Proc. Natl. Acad. Sci. U.S.A. 94:9314-9319(1997).
Nakao A.,et al.Nature 389:631-635(1997).
Hagiwara K.,et al.Submitted (SEP-1997) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).