Product datasheet

Anti-MADH7/SMAD7 antibody ab90086

Overview

Product name: Anti-MADH7/SMAD7 antibody
Description: Rabbit polyclonal to MADH7/SMAD7
Host species: Rabbit
Tested applications: Suitable for: WB
Species reactivity: Reacts with: Human
Predicted to work with: Mouse, Rat
Immunogen: Synthetic peptide corresponding to Human MADH7/SMAD7 (C terminal).
Database link: NM_005904
Positive control: HeLa whole cell lysate (ab150035)

Properties

Form: Lyophilised: Reconstitute with 200ul distilled H2O
Storage instructions: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer: Preservative: 0.02% Sodium azide
Constituent: 2% BSA
Purity: Immunogen affinity purified
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab90086 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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

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

**Involvement in disease**
Colorectal cancer 3

**Sequence similarities**
Belongs to the dwarfin/SMAD family.
Contains 1 MH1 (MAD homology 1) domain.
Contains 1 MH2 (MAD homology 2) domain.

**Post-translational modifications**
Phosphorylation on Ser-249 does not affect its stability, nuclear localization or inhibitory function in TGFB signaling; however it affects its ability to regulate transcription (By similarity).
Phosphorylated by PDPK1.
Ubiquitinated by WWP1 (By similarity). Polyubiquitinated by RNF111, which is enhanced by AXIN1 and promotes proteasomal degradation. In response to TGF-beta, ubiquitinated by SMURF1; which promotes its degradation.
Acetylation prevents ubiquitination and degradation mediated by SMURF1.

**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).

**Images**

Anti-MADH7/SMAD7 antibody (ab90086) at 1/500 dilution + HeLa cell lysate

**Predicted band size:** 46 kDa

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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