

Rabbit anti-Human, Rat SMURF2 Polyclonal Antibody | anti-SMURF2 antibody

SMURF2 Antibody (C-term)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA286036	Rabbit	Human, Rat	Immunofluorescence, Immunohistochemistry, ELISA, Western Blot

PRODUCT SYNONYMS

SMURF2; Polyclonal Antibody; SMURF2 Antibody (C-term); E3 ubiquitin-protein ligase SMURF2; hSMURF2; 632-; SMAD ubiquitination regulatory factor 2; SMAD-specific E3 ubiquitin-protein ligase 2; anti-SMURF2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This SMURF2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 702-731 amino acids from the C-terminal region of human SMURF2.
Purity/Purification	Purified Rabbit Polyclonal Antibody (Pab)
Form/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.
Sequence Positions	702-731
Sequence Length	748
Applicable Applications for anti-SMURF2 antibody	IF (Immunofluorescence), IHC (Immunohistochemistry), ELISA, WB (Western Blot)
Function	E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. Interacts with SMAD1 and SMAD7 in order to trigger their ubiquitination and proteasome-dependent degradation. In addition, interaction with SMAD7 activates autocatalytic degradation, which is prevented by interaction with SCYE1. Forms a stable complex with the TGF-beta receptor-mediated phosphorylated SMAD2 and SMAD3. In this way, SMAD2 may recruit substrates, such as SNON, for ubiquitin-mediated degradation. Enhances the inhibitory activity of SMAD7 and reduces the transcriptional activity of SMAD2. Coexpression of SMURF2 with SMAD1 results in considerable decrease in steady-state level of SMAD1 protein and a smaller decrease of SMAD2 level. Negatively regulates TGFB1-induced epithelial-mesenchymal transition and myofibroblast differentiation (PubMed:).
Cellular Location	Nucleus. Cytoplasm. Cell membrane. Membrane raft. Note=Cytoplasmic in the presence of SMAD7. Colocalizes with CAV1, SMAD7 and TGF-beta receptor in membrane rafts
Tissue Location	Widely expressed.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 2 weekss. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.

IMAGES



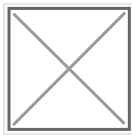
IF (Immunofluorescence)

Hippocampal neurons were transfected 2 h after plating with expression vectors for EGFP, EGFP-tagged Par3-4N/2, Par3-PDZ2, Par3-PDZ3, Smurf2-HECT (HECT), Smurf2-HECT-C716A (HECT CA), and shRNA directed against mPar3 (Par3 RNAi), or vectors for the anti-Par3 shRNA and human Myc-Par3 (RNAi + h Par3) (green). Transfected cells were analyzed at 3 d.i.v. by staining with an anti-Smurf2 antibody (red). Axons are marked by arrowheads. The marked growth cones are shown at a higher magnification. Scale bars, 40 and 10 μ m. (J. Biol. Chem. 2007 Nov 30;282(48):35259-35268)



IF (Immunofluorescence)

Hippocampal neurons were fixed at stage 3, stained with anti-Smurf2 (red) and anti-Kinesin-2 (green) antibodies, and analyzed by confocal microscopy. The panels show single confocal planes. (J. Biol. Chem. 2007 Nov 30;282(48):35259-35268)



IHC (Immunohistochemistry)

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



WB (Western Blot)

Anti-SMURF2 Antibody (C-term) at 1:2000 dilution + C2C12 whole cell lysate Lysates/proteins at 20 ug per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 86 kDa Blocking/Dilution buffer: 5% NFDm/TBST.

ADDITIONAL INFORMATION

Related Product Information for anti-SMURF2 antibody	SMURF2 is an E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. This protein interacts with SMAD1, SMAD2 and SMAD7 in order to trigger their ubiquitination and proteasome-dependent degradation. It enhances the inhibitory activity of SMAD7 and reduces the transcriptional activity of SMAD2. Coexpression of SMURF2 with SMAD1 results in considerable decrease in steady-state level of SMAD1 protein and a smaller decrease of SMAD2 level.
Product Categories/Family for anti-SMURF2 antibody	Signal Transduction
References	Tajima, Y., et al., J. Biol. Chem. 278(12):10716-10721 (2003). Suzuki, C., et al., J. Biol. Chem. 277(42):39919-39925 (2002). Ebisawa, T., et al., J. Biol. Chem. 276(16):12477-12480 (2001). Zhu, H., et al., Nature 400(6745):687-693 (1999). Lambris, J., et al., J. Immunol. Methods 27(1):55-59 (1979).

NCBI AND UNIPROT INFORMATION

NCBI GI #	12232397
NCBI GeneID	64750
NCBI Accession #	NP_073576.1
NCBI GenBank Nucleotide #	NM_022739.3
UniProt Accession #	Q9HAU4; Q52LL1; Q9H260
NCBI Official Full Name	E3 ubiquitin-protein ligase SMURF2
NCBI Official Synonym Full Names	SMAD specific E3 ubiquitin protein ligase 2
NCBI Official Symbol	SMURF2
NCBI Protein Information	E3 ubiquitin-protein ligase SMURF2
UniProt Protein Name	E3 ubiquitin-protein ligase SMURF2
UniProt Gene Name	SMURF2
UniProt Synonym Gene Names	hSMURF2

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/smurf2-antibody-immunofluorescence-immunohistochemistry-western-blot-elisa/286036>