

SMURF2 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8633b**Specification**

SMURF2 Antibody - Product Information

| | |
|-------------------|------------------------|
| Application | WB,E |
| Primary Accession | O9HAU4 |
| Reactivity | Human |
| Host | Mouse |
| Clonality | monoclonal |
| Isotype | IgG1,k |
| Calculated MW | 86196 |

SMURF2 Antibody - Additional Information**Gene ID** 64750**Other Names**

E3 ubiquitin-protein ligase SMURF2, hSMURF2, 6.3.2.-, SMAD ubiquitination regulatory factor 2, SMAD-specific E3 ubiquitin-protein ligase 2, SMURF2

Target/Specificity

This SMURF2 antibody is generated from a mouse immunized with a recombinant protein of human SMURF2.

Dilution

WB~~1:2000-1:4000

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, 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

SMURF2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SMURF2 Antibody - Protein Information**Name** SMURF2 ([HGNC:16809](#))

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 (PubMed:[11016919](#)). Interacts with SMAD7 to trigger SMAD7-mediated transforming growth factor beta/TGF-beta receptor ubiquitin-dependent degradation, thereby down-regulating TGF-beta

signaling (PubMed:[11163210](#), PubMed:[12717440](#), PubMed:[21791611](#)). In addition, interaction with SMAD7 activates autocatalytic degradation, which is prevented by interaction with AIMP1 (PubMed:[18448069](#)). Also forms a stable complex with TGF-beta receptor-mediated phosphorylated SMAD1, SMAD2 and SMAD3, and targets SMAD1 and SMAD2 for ubiquitination and proteasome-mediated degradation (PubMed:[11016919](#), PubMed:[11158580](#), PubMed:[11389444](#)). SMAD2 may recruit substrates, such as SNON, for ubiquitin-dependent degradation (PubMed:[11389444](#)). Negatively regulates TGFβ1-induced epithelial-mesenchymal transition and myofibroblast differentiation (PubMed:[30696809](#)).

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

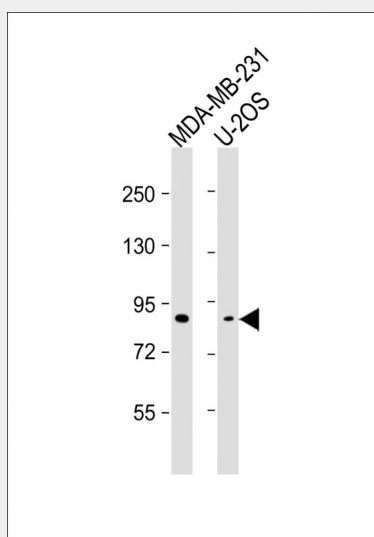
Widely expressed.

SMURF2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SMURF2 Antibody - Images



All lanes : Anti-SMURF2 Antibody at 1:2000-1:4000 dilution Lane 1: MDA-MB-231 whole cell lysate Lane 2: U-2OS whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 86 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

SMURF2 Antibody - Background

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.

SMURF2 Antibody - References

Kavsak P., et al. Mol. Cell 6:1365-1375(2000).
Lin X., et al. J. Biol. Chem. 275:36818-36822(2000).
Zhang Y., et al. Proc. Natl. Acad. Sci. U.S.A. 98:974-979(2001).
Bonni S., et al. Nat. Cell Biol. 3:587-595(2001).
Di Guglielmo G.M., et al. Nat. Cell Biol. 5:410-421(2003).