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Anti-SMURF 2 Antibody
Catalog # ABO12778

Specification

Anti-SMURF 2 Antibody - Product Information

Application	**WB**
Primary Accession	Q9HAU4
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for E3 ubiquitin-protein ligase SMURF2(SMURF2) detection. Tested with WB in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-SMURF 2 Antibody - Additional Information

Gene ID 64750

Other Names
E3 ubiquitin-protein ligase SMURF2, hSMURF2, 2.3.2.26, HECT-type E3 ubiquitin transferase SMURF2, SMAD ubiquitination regulatory factor 2, SMAD-specific E3 ubiquitin-protein ligase 2, SMURF2

Calculated MW
86196 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Nucleus . Cytoplasm . Cell membrane . Membrane raft . Cytoplasmic in the presence of SMAD7. Colocalizes with CAV1, SMAD7 and TGF-beta receptor in membrane rafts.

Tissue Specificity
Widely expressed.

Protein Name
E3 ubiquitin-protein ligase SMURF2

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence in the middle region of human SMURF 2 (317-351aa DHNNRTTQFTDPRLSANLHLVLNRQNQLKDQQQQQ), identical to the related mouse

sequence.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-SMURF 2 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 TGFB1-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.

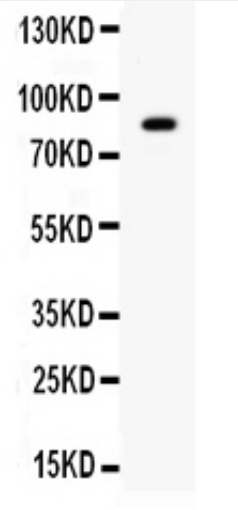
Anti-SMURF 2 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot

- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-SMURF 2 Antibody - Images



Western blot analysis of SMURF2 expression in SMMC whole cell lysates (lane 1). SMURF2 at 86KD was detected using rabbit anti- SMURF2 Antigen Affinity purified polyclonal antibody (Catalog # ABO12778) at0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .

Anti-SMURF 2 Antibody - Background

E3 ubiquitin-protein ligase SMURF2 is an enzyme that in humans is encoded by the SMURF2 gene. The SMURF2 gene is mapped to chromosome 17q22-q23 based on sequence similarity between the SMURF2 sequence and a genomic contig. SMURF2 is a HECT domain E3 ubiquitin ligase involved in degradation of SMADs, TGF-beta receptor (TGFBR), and other substrates. It also functions in regulation of neuronal and planar cell polarity, induction of senescence, and tumor suppression