

[KD Validated] Anti-SMURF2 Mouse mAb

Purified Recombinant Rabbit Monoclonal Antibody

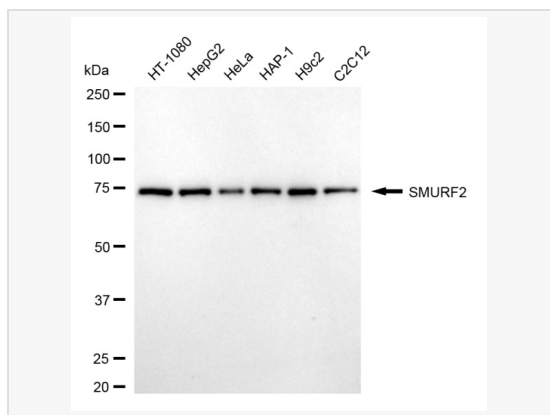
Catalog # M020672

Product Information

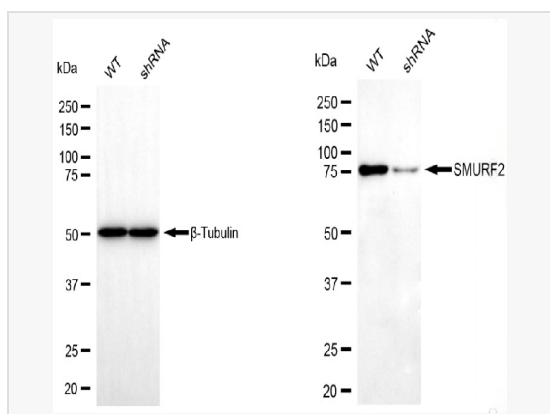
Application	WB, FC
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000
Host	Mouse
Clonality	Monoclonal
Clone No.	69P94M58
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant protein of human Smurf2
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-SMURF2 Mouse mAb [69P94M58] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

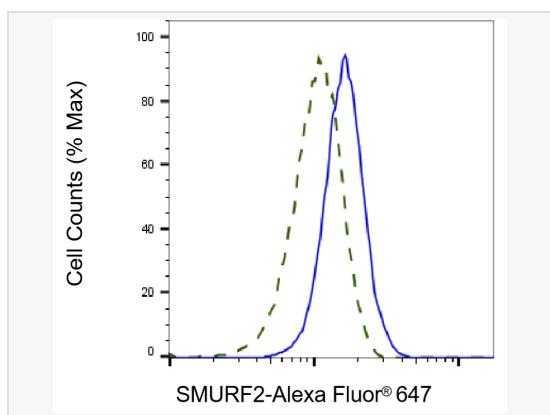
Synonyms	SMURF2; SMAD Specific E3 Ubiquitin Protein Ligase 2; HECT-Type E3 Ubiquitin Transferase SMURF2; SMAD Ubiquitination Regulatory Factor 2; E3 Ubiquitin-Protein Ligase SMURF2; HSMURF2; SMAD-Specific E3 Ubiquitin-Protein Ligase 2; E3 Ubiquitin Ligase SMURF2; EC 2.3.2.26; EC 6.3.2.
Calculated MW	Calculated MW: 86 kDa; Observed MW: 75 kDa
Uniprot ID	Q9HAU4
Gene ID	64750
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.
Cellular Location	Nucleus. Cytoplasm. Cell membrane. Membrane raft. Cytoplasmic in the presence of SMAD7. Co-localizes with CAV1, SMAD7 and TGF-beta receptor in membrane rafts.
Tissue Location	Widely expressed.



Western blotting analysis using SMURF2 antibody (M020672). Total cell lysates (30 μ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with SMURF2 antibody (M020672, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit. SMURF2, SMAD specific E3 ubiquitin protein ligase 2.



Western blotting analysis using SMURF2 antibody (M020672). SMURF2 expression in wild-type (WT) and SMURF2 shRNA knockdown (KD) HeLa cells with 20 μ g of total cell lysates. β -Tubulin serves as a loading control. The blot was incubated with SMURF2 antibody (M020672, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Validation of SMURF2 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with SMURF2 antibody (M020672, 1:2,000) and analyzed using BD flow cytometer.