

**KD-Validated Anti-SMURF2 Mouse Monoclonal Antibody**  
**Mouse monoclonal antibody**  
**Catalog # AGI2000****Specification****KD-Validated Anti-SMURF2 Mouse Monoclonal Antibody - Product Information**

|                   |                                                                                                                                                                                                                                                                                      |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application       | WB                                                                                                                                                                                                                                                                                   |
| Primary Accession | <a href="#">O9HAU4</a>                                                                                                                                                                                                                                                               |
| Reactivity        | Rat, Human, Mouse                                                                                                                                                                                                                                                                    |
| Clonality         | Monoclonal                                                                                                                                                                                                                                                                           |
| Isotype           | Mouse IgG1 kappa                                                                                                                                                                                                                                                                     |
| Calculated MW     | Predicted, 86 kDa, observed, 75 kDa                                                                                                                                                                                                                                                  |
| Gene Name         | KDa SMURF2                                                                                                                                                                                                                                                                           |
| Aliases           | 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 |
| Immunogen         | Recombinant protein of human Smurf2                                                                                                                                                                                                                                                  |

**KD-Validated Anti-SMURF2 Mouse Monoclonal 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 ([http://www.genenames.org/cgi-bin/gene\\_symbol\\_report?hgnc\\_id=16809](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=16809)) target="\_blank">HGNC:16809</a>)

**KD-Validated Anti-SMURF2 Mouse Monoclonal 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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/11163210), PubMed:[12717440](http://www.uniprot.org/citations/12717440), PubMed:[21791611](http://www.uniprot.org/citations/21791611)). In addition, interaction with SMAD7 activates autocatalytic degradation, which is prevented by interaction with AIMP1 (PubMed:[18448069](http://www.uniprot.org/citations/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:<a href="http://www.uniprot.org/citations/11016919" target="\_blank">11016919</a>, PubMed:<a href="http://www.uniprot.org/citations/11158580" target="\_blank">11158580</a>, PubMed:<a href="http://www.uniprot.org/citations/11389444" target="\_blank">11389444</a>). SMAD2 may recruit substrates, such as SNON, for ubiquitin-dependent degradation (PubMed:<a href="http://www.uniprot.org/citations/11389444" target="\_blank">11389444</a>). Negatively regulates TGFB1-induced epithelial-mesenchymal transition and myofibroblast differentiation (PubMed:<a href="http://www.uniprot.org/citations/30696809" target="\_blank">30696809</a>).

#### 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

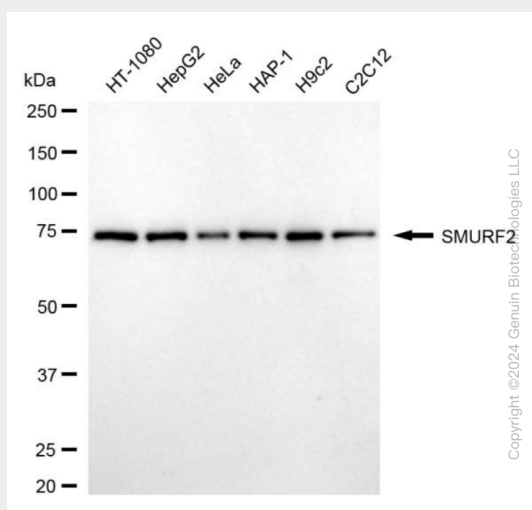
Widely expressed.

### KD-Validated Anti-SMURF2 Mouse Monoclonal Antibody - Protocols

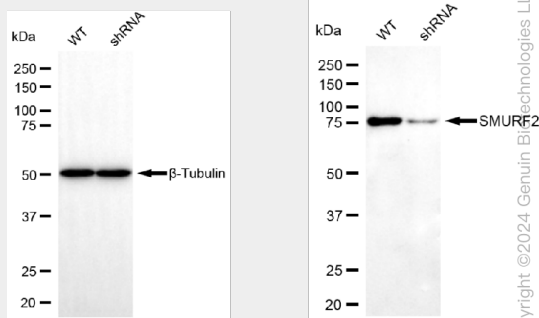
Provided below are standard protocols that you may find useful for product applications.

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

### KD-Validated Anti-SMURF2 Mouse Monoclonal Antibody - Images



Western blotting analysis using anti-SMURF2 antibody (Cat#AGI2000). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-SMURF2 antibody (Cat#AGI2000, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Western blotting analysis using anti-SMURF2 antibody (Cat#AGI2000). SMURF2 expression in wild-type (WT) and SMURF2 shRNA knockdown (KD) HeLa cells with 20  $\mu$ g of total cell lysates.  $\beta$ -Tubulin serves as a loading control. The blot was incubated with anti-SMURF2 antibody (Cat#AGI2000, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.