

# Anti-SMURF 2 Rabbit Monoclonal Antibody

Catalog # ABO14623

## Product Information

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|--------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>Application</b>       | WB                                                                                                               |
| <b>Primary Accession</b> | <a href="#">Q9HAU4</a>                                                                                           |
| <b>Host</b>              | Rabbit                                                                                                           |
| <b>Isotype</b>           | Rabbit IgG                                                                                                       |
| <b>Reactivity</b>        | Rat, Human, Mouse                                                                                                |
| <b>Clonality</b>         | Monoclonal                                                                                                       |
| <b>Format</b>            | Liquid                                                                                                           |
| <b>Description</b>       | Anti-SMURF 2 Rabbit Monoclonal Antibody . Tested in WB application. This antibody reacts with Human, Mouse, Rat. |

## Additional Information

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| <b>Gene ID</b>             | 64750                                                                                                                                                                                                                                                                                                                                                   |
| <b>Other Names</b>         | 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 ( <a href="#">HGNC:16809</a> )                                                                                                                           |
| <b>Calculated MW</b>       | 86196                                                                                                                                                                                                                                                                                                                                                   |
| <b>Application Details</b> | WB 1:500-1:1000                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>              | Eukaryota                                                                                                                                                                                                                                                                                                                                               |
| <b>Contents</b>            | Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.                                                                                                                                                                                                                                     |
| <b>Clone Names</b>         | Clone: AECF-19                                                                                                                                                                                                                                                                                                                                          |
| <b>Immunogen</b>           | A synthesized peptide derived from human SMURF 2 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. |
| <b>Purification</b>        | Affinity-chromatography                                                                                                                                                                                                                                                                                                                                 |
| <b>Storage</b>             | Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.                                                                                                                                                                                                              |

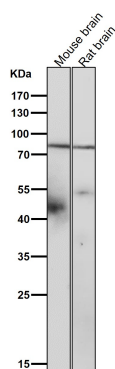
## Protein Information

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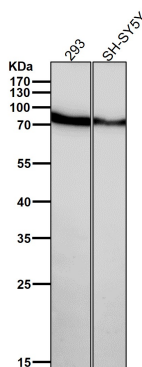
|             |                                       |
|-------------|---------------------------------------|
| <b>Name</b> | SMURF2 ( <a href="#">HGNC:16809</a> ) |
|-------------|---------------------------------------|

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|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Function</b>          | <p>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:<a href="#">11016919</a>, PubMed:<a href="#">38016474</a>). Interacts with SMAD7 to trigger SMAD7-mediated transforming growth factor beta/TGF-beta receptor ubiquitin-dependent degradation, thereby down-regulating TGF-beta signaling (PubMed:<a href="#">11163210</a>, PubMed:<a href="#">12717440</a>, PubMed:<a href="#">21791611</a>). In addition, interaction with SMAD7 activates autocatalytic degradation, which is prevented by interaction with AIMP1 (PubMed:<a href="#">18448069</a>). 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="#">11016919</a>, PubMed:<a href="#">11158580</a>, PubMed:<a href="#">11389444</a>). SMAD2 may recruit substrates, such as SNON, for ubiquitin-dependent degradation (PubMed:<a href="#">11389444</a>). Negatively regulates TGFB1-induced epithelial-mesenchymal transition and myofibroblast differentiation (PubMed:<a href="#">30696809</a>). Acts as an activator of ferroptosis by mediating ubiquitination and degradation of GSTP1, thereby preventing detoxification of 4-hydroxynonenal (4-HNE) reactive aldehyde (PubMed:<a href="#">38016474</a>). Acts as a positive regulator of smoothened signaling pathway by mediating ubiquitination of PTCH1, leading to endocytosis and lysosomal degradation of PTCH1 (By similarity).</p> |
| <b>Cellular Location</b> | <p>Nucleus. Cytoplasm. Cell membrane. Membrane raft. Note=Cytoplasmic in the presence of SMAD7. Colocalizes with CAV1, SMAD7 and TGF-beta receptor in membrane rafts</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Tissue Location</b>   | <p>Widely expressed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## Images

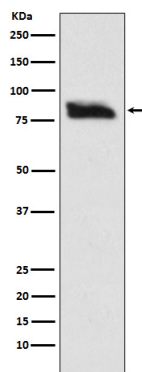


All lanes use the Antibody at 1:3K dilution for 1 hour at room temperature.



All lanes use the Antibody at 1:3K dilution for 1 hour at room temperature.

Western blot analysis of SMURF 2 expression in SH-SY-5Y cell lysate.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.