10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

# Anti-Sumo 1 Rabbit Monoclonal Antibody

**Catalog # ABO13822**

## Specification

### Anti-Sumo 1 Rabbit Monoclonal Antibody - Product Information

| | |
|---|---|
| Application | **WB, IHC, IF, ICC, IP, FC** |
| Primary Accession | P63165 |
| Host | **Rabbit** |
| Isotype | **Rabbit IgG** |
| Reactivity | **Rat, Human, Mouse** |
| Clonality | **Monoclonal** |
| Format | **Liquid** |

**Description**
Anti-Sumo 1 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

### Anti-Sumo 1 Rabbit Monoclonal Antibody - Additional Information

**Gene ID** 7341

**Other Names**
Small ubiquitin-related modifier 1, SUMO-1, GAP-modifying protein 1, GMP1, SMT3 homolog 3, Sentrin, Ubiquitin-homology domain protein PIC1, Ubiquitin-like protein SMT3C, Smt3C, Ubiquitin-like protein UBL1, SUMO1, SMT3C, SMT3H3, UBL1

**Calculated MW**
11557 MW KDa

**Application Details**
WB 1:500-1:2000<br>IHC 1:50-1:200<br>ICC/IF 1:50-1:200<br>IP 1:50<br>FC 1:50

**Subcellular Localization**
Nucleus membrane. Nucleus speckle. Cytoplasm. Nucleus, PML body. Cell membrane. Recruited by BCL11A into the nuclear body..

**Contents**
Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**
A synthesized peptide derived from human Sumo 1

**Purification**
Affinity-chromatography

| | |
|---|---|
| Storage | **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.** |

## Anti-Sumo 1 Rabbit Monoclonal Antibody - Protein Information

**Name** SUMO1

**Synonyms** SMT3C, SMT3H3, UBL1

**Function**
Ubiquitin-like protein that can be covalently attached to proteins as a monomer or a lysine-linked polymer. Covalent attachment via an isopeptide bond to its substrates requires prior activation by the E1 complex SAE1-SAE2 and linkage to the E2 enzyme UBE2I, and can be promoted by E3 ligases such as PIAS1-4, RANBP2 or CBX4. This post- translational modification on lysine residues of proteins plays a crucial role in a number of cellular processes such as nuclear transport, DNA replication and repair, mitosis and signal transduction. Involved for instance in targeting RANGAP1 to the nuclear pore complex protein RANBP2. Covalently attached to the voltage-gated potassium channel KCNB1; this modulates the gating characteristics of KCNB1 (PubMed:<a href="http://www.uniprot.org/citations/19223394" target="_blank">19223394</a>). Polymeric SUMO1 chains are also susceptible to polyubiquitination which functions as a signal for proteasomal degradation of modified proteins. May also regulate a network of genes involved in palate development. Covalently attached to ZFHX3 (PubMed:<a href="http://www.uniprot.org/citations/24651376" target="_blank">24651376</a>).

**Cellular Location**
Nucleus membrane. Nucleus speckle {ECO:0000250|UniProtKB:P63166}. Cytoplasm. Nucleus, PML body. Cell membrane. Nucleus. Note=Recruited by BCL11A into the nuclear body (By similarity). In the presence of ZFHX3, sequesterd to nuclear body (NB)-like dots in the nucleus some of which overlap or closely associate with PML body (PubMed:24651376) {ECO:0000250|UniProtKB:P63166, ECO:0000269|PubMed:24651376}

## Anti-Sumo 1 Rabbit 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 Cytomety
- Cell Culture

## Anti-Sumo 1 Rabbit Monoclonal Antibody - Images

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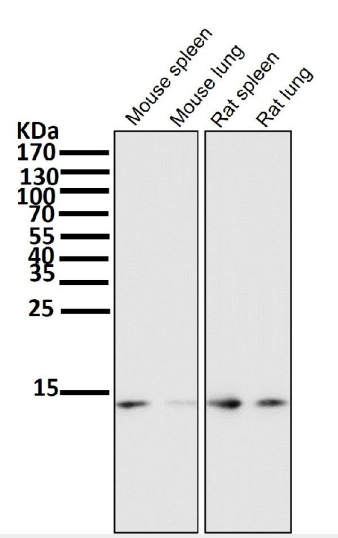
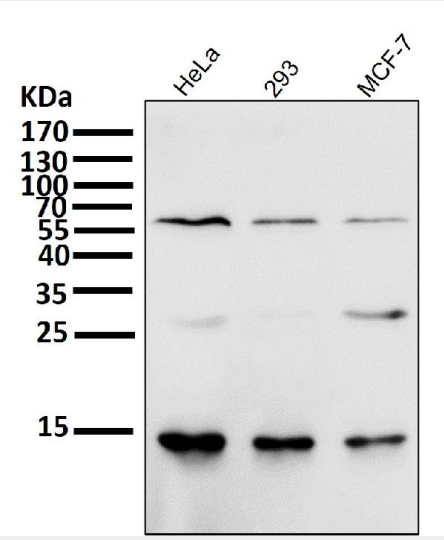
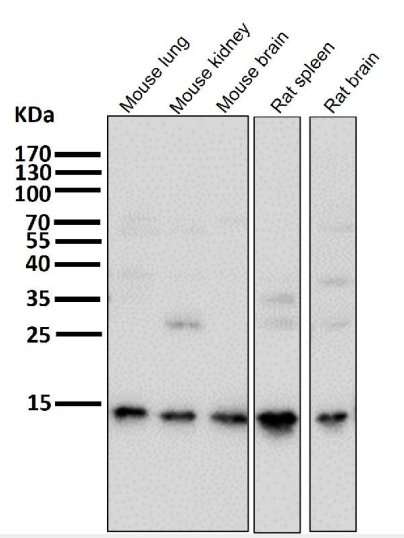



All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.




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

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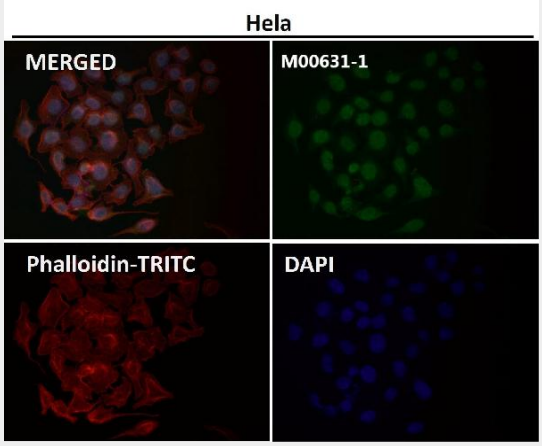
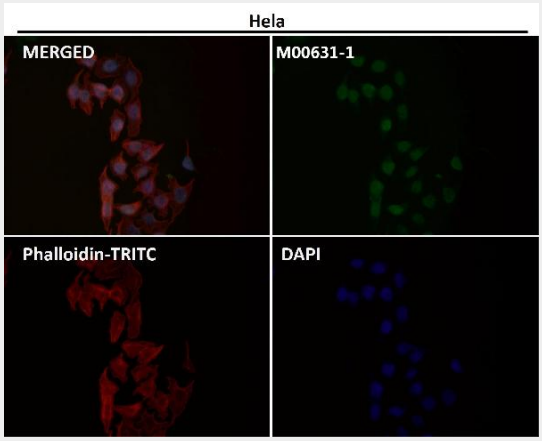
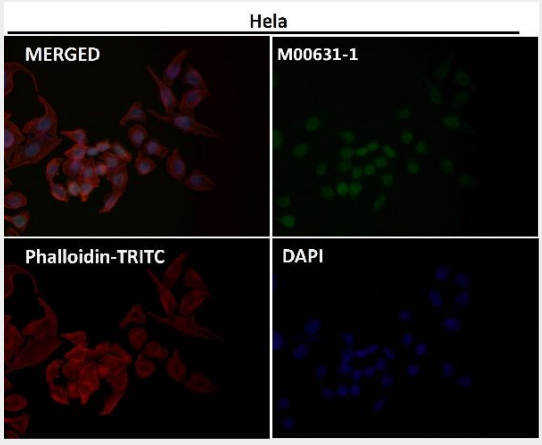



Immunofluorescent analysis using the Antibody at 1:50 dilution.




Immunofluorescent analysis using the Antibody at 1:150 dilution.




Immunofluorescent analysis using the Antibody at 1:500 dilution.

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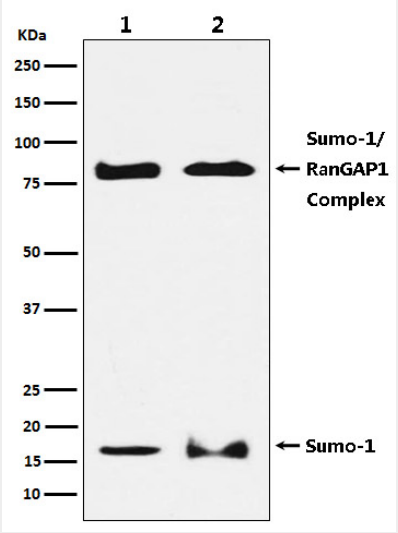
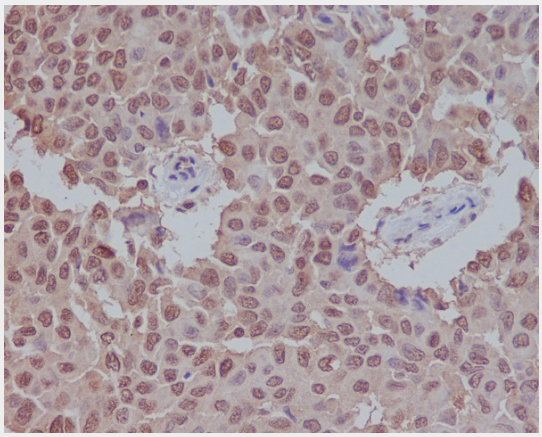
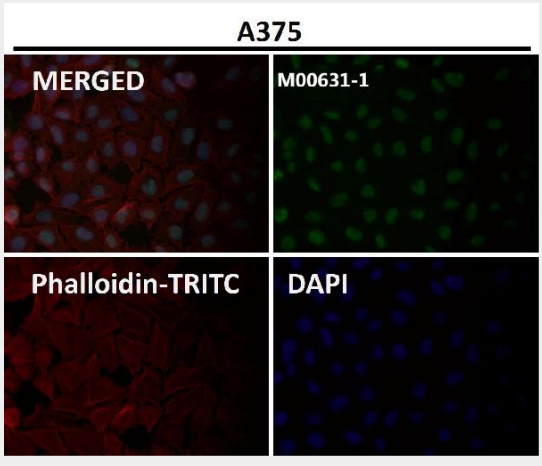



Western blot analysis of SUMO1 expression in (1) HeLa cell lysate; (2) NIH/3T3 cell lysate.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma, using Sumo 1 Antibody.




Immunofluorescent analysis using the Antibody at 1:50 dilution.

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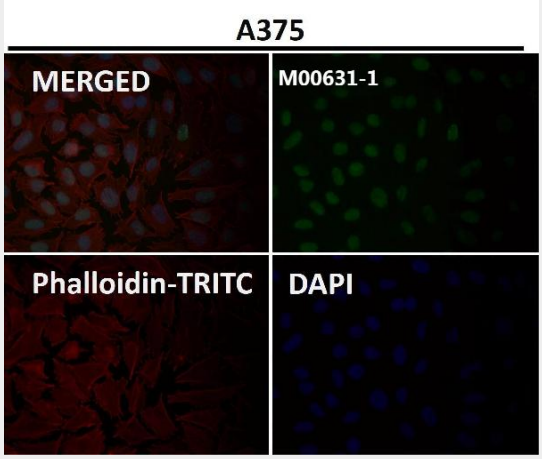
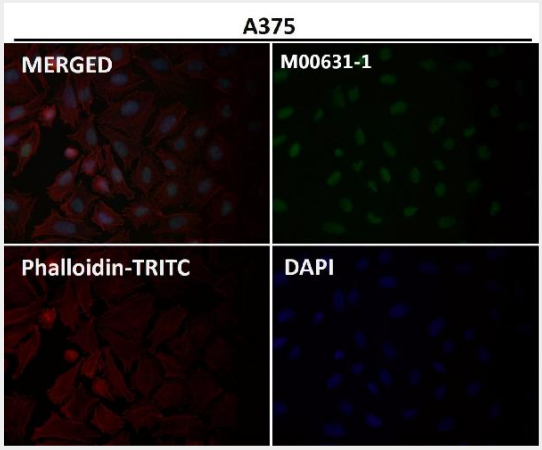



Immunofluorescent analysis using the Antibody at 1:150 dilution.




Immunofluorescent analysis using the Antibody at 1:500 dilution.