

**SAE1 Antibody**  
Catalog # ASC11128**Specification**

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**SAE1 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">O9UBE0</a>
Other Accession	<a href="#">NP_005491</a> , <a href="#">4885585</a>
Reactivity	<b>Human, Mouse, Rat</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>IgG</b>
Calculated MW	<b>Predicted: 38 kDa</b>
Application Notes	<b>Observed: 39 kDa KDa</b> <b>SAE1 antibody can be used for detection of SAE1 by Western blot at 1 µg/mL.</b>

**SAE1 Antibody - Additional Information**

Gene ID	<b>10055</b>
<b>Target/Specificity</b>	
SAE1;	

**Reconstitution & Storage**

SAE1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

SAE1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**SAE1 Antibody - Protein Information**

**Name** SAE1

**Synonyms** AOS1, SUA1, UBLE1A

**Function**

The heterodimer acts as an E1 ligase for SUMO1, SUMO2, SUMO3, and probably SUMO4. It mediates ATP-dependent activation of SUMO proteins followed by formation of a thioester bond between a SUMO protein and a conserved active site cysteine residue on UBA2/SAE2.

**Cellular Location**

Nucleus.

**Tissue Location**

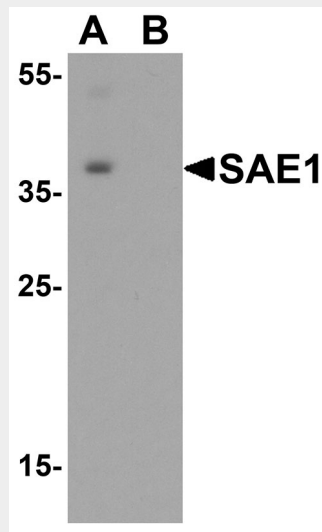
Expression level increases during S phase and drops in G2 phase (at protein level).

## SAE1 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](#)

## SAE1 Antibody - Images



Western blot analysis of SAE1 in SK-N-SH lysate with SAE1 antibody at 0.5  $\mu\text{g/mL}$  in (A) the absence and (B) the presence of blocking peptide.

## SAE1 Antibody - Background

SAE1 Antibody: Small ubiquitin-like modifiers (SUMOs) are a family of small, related proteins (SUMO-1/2/3/4) that can be enzymatically attached to a target protein by a post-translational modification process termed sumoylation, a major regulator of protein function in cellular processes such as nuclear transport, transcriptional regulation, apoptosis and protein stability. This sumoylation is effected by the heterodimeric enzyme SAE1/SAE2 and the SUMO-1-conjugating enzyme Ubch9. The sumoylation pathway mediated by SAE1/SAE2 is distinct from other ubiquitin-like protein (Ubl) pathways.

## SAE1 Antibody - References

Kamitani T, Kito K, Nguyen HP, et al. Characterization of a second member of the sentrin family of ubiquitin-like proteins. *J. Biol. Chem.*1998;273:11349-53.  
Kim KI, Baek SH, and Chung CH. Versatile protein tag, SUMO: its enzymology and biological function. *J. Cell. Physiol.*2002; 191: 257-68.  
Desterro JM, Rodriguez MS, Kemp GD, et al. Identification of the enzyme required for activation of the small ubiquitin-like protein SUMO-1. *J. Biol. Chem.*1999; 274:10618-24.  
Tatham MH, Jaffray E, Vaughan OA, et al. Polymeric chains of SUMO-2 and SUMO-3 are conjugated

to protein substrates by SAE1/SAE2 and Ubc9. J. Biol. Chem.2001; 276:35368-74.