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SAE1 Antibody
Catalog # ASC11128

Specification

SAE1 Antibody - Product Information

Application	**WB**
Primary Accession	Q9UBE0
Other Accession	NP_005491, 4885585
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 38 kDa** **Observed: 39 kDa KDa**
Application Notes	**SAE1 antibody can be used for detection of SAE1 by Western blot at 1 µg/mL.**

SAE1 Antibody - Additional Information

Gene ID	**10055**

Target/Specificity
SAE1;

Reconstitution & Storage
SAE1 antibody can be stored at 4℃ for three months and -20℃, 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.

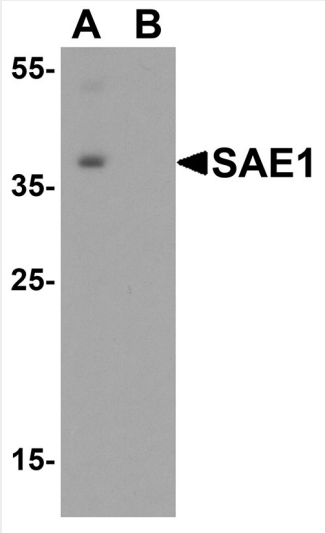
Tissue Location
Expression level increases during S phase and drops in G2 phase (at protein level).

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 Cytomety
- Cell Culture

SAE1 Antibody - Images



Western blot analysis of SAE1 in SK-N-SH lysate with SAE1 antibody at 0.5 µg/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.