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SAE1 (AOS1) Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP1199b

Specification

SAE1 (AOS1) Antibody (C-term) Blocking peptide - Product Information

Primary Accession	Q9UBE0
Other Accession	NP_005491

SAE1 (AOS1) Antibody (C-term) Blocking peptide - Additional Information

Gene ID 10055

Other Names
SUMO-activating enzyme subunit 1, Ubiquitin-like 1-activating enzyme E1A, SUMO-activating enzyme subunit 1, N-terminally processed, SAE1, AOS1, SUA1, UBLE1A

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1199b was selected from the C-term region of human SAE1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SAE1 (AOS1) Antibody (C-term) Blocking peptide - 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 (AOS1) Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

SAE1 (AOS1) Antibody (C-term) Blocking peptide - Images

SAE1 (AOS1) Antibody (C-term) Blocking peptide - Background

Covalent attachment of one protein to another is one of the more prominent posttranslational modifications in respects to size and ubiquity ? to which eukaryotic proteins are subject. Ubiquitin is the most familiar of the protein modifiers and its activation and transfer to target proteins has been studied for over two decades. Recently a new group of ubiquitin-like (Ubl) proteins have come to light. One of the most intriguing of them is SUMO (small ubiquitin-like modifier, ~12kDa) also known as Sentrin. SUMO family has been described in vertebrates: SUMO-1 and the closest homologs SUMO-2 and SUMO-3. SUMO have been shown to bind and regulate mammalian SP-RINGs (such as Mdm2, PIAS and PML), RanGAP1, RanBP2, p53, p73, HIPK2, TEL, c-Jun, Fas, Daxx, TNFRI, Topo-I, Topo-II, WRN, Sp100, IkB-alpha, Androgen receptor (AR), GLUT1/4, Drosophila Ttk69, Dorsal, CaMK, yeast Septins, and viral CMV-IE1/2, EBV-BZLF1, HPV/BPV-E1. These bindings implicate SUMO in the stabilization of the target proteins and/or their localization to subcellular complexes. SUMO research enters now an exciting phase with a promise to help understanding how cells orchestrate the complexities of rapidly regulating protein level and activity.

SAE1 (AOS1) Antibody (C-term) Blocking peptide - References

Desterro, J.M., et al., J. Biol. Chem. 274(15):10618-10624 (1999).Gong, L., et al., FEBS Lett. 448(1):185-189 (1999).Okuma, T., et al., Biochem. Biophys. Res. Commun. 254(3):693-698 (1999).