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SAE1 Antibody

Catalog # ASC11128

Product Information

Application	WB, E
Primary Accession	Q9UBE0
Other Accession	NP_005491, 4885585
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	38450
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SAE1 antibody can be used for detection of SAE1 by Western blot at 1 □g/mL.

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	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.

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).

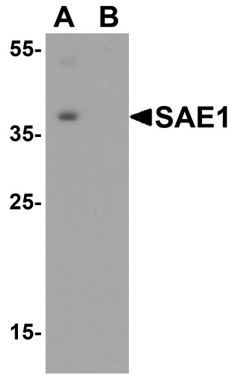
Background

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.

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.

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.

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