10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SAE1 (AOS1) Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2511b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9UBE0
Other Accession	Q6AXQ0, Q9R1T2, A2VE14
Reactivity	Human, Mouse
Predicted	Bovine, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB2887 / RB2888
Calculated MW	38450
Antigen Region	300-329

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	This SAE1 (AOS1) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 300-329 amino acids from the C-terminal region of human SAE1 (AOS1).
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SAE1 (AOS1) Antibody (C-term) 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).

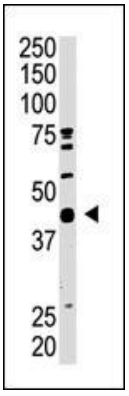
Background

The dimeric enzyme AOS1 acts as a an E1 ligase for SUMO1, SUMO2, SUMO3, and probably SUMO4. It mediates ATP-dependent activation of SUMO proteins and formation of a thioester with a conserved cysteine residue on SAE2.

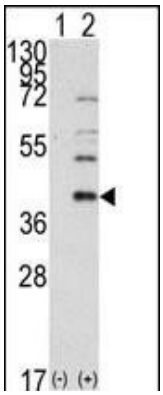
References

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).

Images

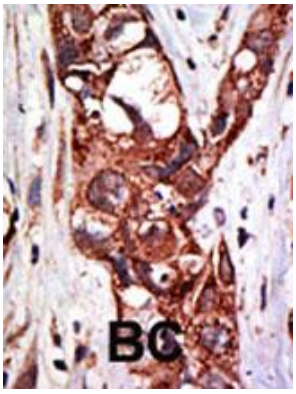


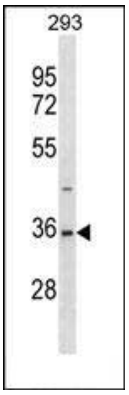
The AOS1 C-term Pab (Cat. #AP2511b) is used in Western blot to detect AOS1 in mouse heart tissue lysate.



Western blot analysis of AOS1 (arrow) using rabbit polyclonal AOS1 Antibody (C-term) (Cat.#AP2511b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the AOS1 gene (Lane 2) (Origene Technologies).

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.





AOS1 Antibody (V315) (Cat. #AP2511b) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the AOS1 antibody detected the AOS1 protein (arrow).

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