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

SAE2 (UBA2) Antibody (C-term E616)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1065b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9UBT2
Reactivity	Human
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB2822
Calculated MW	71224
Antigen Region	601-631

Additional Information

Gene ID	10054
Other Names	SUMO-activating enzyme subunit 2, 632-, Anthracycline-associated resistance ARX, Ubiquitin-like 1-activating enzyme E1B, Ubiquitin-like modifier-activating enzyme 2, UBA2, SAE2, UBLE1B
Target/Specificity	This SAE2 (UBA2) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 601-631 amino acids from the C-terminal region of human SAE2 (UBA2).
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 prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	SAE2 (UBA2) Antibody (C-term E616) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	UBA2
Synonyms	SAE2, UBLE1B

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	Cytoplasm. Nucleus. Note=Shuttles between the cytoplasm and the nucleus, sumoylation is required either for nuclear translocation or nuclear retention

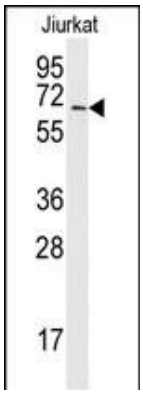
Background

Ubiquitin is covalently attached to target proteins by a multienzymatic system consisting of E1 (ubiquitin-activating), E2 (ubiquitin-conjugating), and E3 (ubiquitin-ligating) enzymes. NEDD8, a ubiquitin-like protein, is conjugated to proteins in a manner analogous to ubiquitinylation. beta-amyloid precursor protein-binding protein-1 (APPBP1) can bind to NEDD8 in rabbit reticulocyte lysates. However, since APPBP1 shows similarity to only the N-terminal domain of an E1 enzyme, it must interact with a protein showing similarity to the C-terminal region of E1s. By searching sequence databases, a cDNAs encoding UBA3 was identified as the human homolog of yeast Uba3. The predicted 442-amino acid UBA3 protein shares 43% sequence identity with yeast Uba3. In vitro, UBA3 formed a complex with APPBP1 and a thioester linkage with NEDD8. APPBP1/UBA3 complex may function as an E1-like enzyme for the activation of NEDD8.

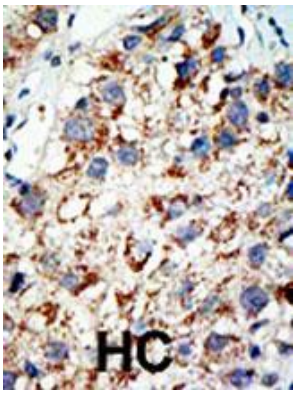
References

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 anti-UBA2 C-term E616 Antibody (Cat.#AP1065b) is used in Western blot to detect UBA2 in Jurkat lysate.



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

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