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Datasheet for 600-401-B24S

SAE1 phospho S185 Antibody

Overview

Description:	Anti-SUMO Activating Enzyme E1 (SAE1) pS185 (RABBIT) Antibody - 600-401-B24S
Item No.:	600-401-B24S
Size:	25 µL
Applications:	ELISA, WB
Reactivity:	H. sapiens (Human)
Host Species:	Rabbit

Product Details

Background:	SUMO E1 activating enzyme (also called Ubiquitin-like 1 activating enzyme E1A, UBLE1A, AOS1, SAE1, and SUA1) with SAE2 (also known as UBA2) forms a heterodimeric (SAE1/SAE2) enzyme that activates the ubiquitin-like SUMO proteins (SUMO stands for Small Ubiquitin-like MOdifier.) The SAE1 (SUMO Activating Enzyme 1) subunit resembles the N-terminal half of yeast UBA1; the SAE2 (also called Uba2) subunit corresponds to the C-terminal part of yeast UBA1 and contains the active site cysteine. In the SUMO activation step, SAE1/SAE2 uses ATP to adenylate the C-terminal glycine of SUMO-1 (the first of the three different mammalian SUMO proteins) then forms a high-energy thioester bond between the C-terminal glycine and the active site cysteine in SAE2 (Uba2). In the conjugation step, the SUMO moiety is transferred from SAE1/SAE2 to the active site cysteine (Cys 93) of the SUMO conjugating enzyme (SUMO E2, Ubc9) forming a SUMO-E2 thioester complex.
Synonyms:	rabbit anti-SAE1 pS185 antibody, rabbit anti-SUMO activating enzyme subunit 1 pS185 antibody, Ubiquitin-like 1 activating enzyme E1A, UBLE1A, AOS1, SAE1, SUA1, SAE-1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	SAE1
Reactivity:	H. sapiens (Human)

PTM Specificity:	Phosphorylation
Immunogen Type:	Peptide
Immunogen:	This purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a region surrounding S185 of the human SUMO Activating Enzyme E1 protein.
Purity/Specificity:	This purified antibody is directed against human SUMO Activating Enzyme E1 protein. The product was purified from monospecific antiserum by affinity chromatography. This antibody is specific for human SAE1 protein phosphorylated at S185. A BLAST analysis using the sequence of the immunizing peptide was used to suggest that this antibody would react with SUMO Activating Enzyme E1 protein from human (100%), bovine, dog, chimpanzee (96%), mouse (93%), and rat (92%) based on a high degree of sequence homology. Cross reactivity against this protein from other sources has not been determined.
Relevant Links:	• UniProtKB - Q9UBE0 • NCBI - NP_005491.1 • GeneID - 10055

Application Details

Tested Applications:	ELISA, WB
Application Note:	This purified antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band at ~37 kDa in size corresponding to phosphorylated SAE1 protein by western blotting in the appropriate cell lysate or extract. This phospho-specific antibody reacts with human SAE1 pS185 and shows minimal reactivity by ELISA against the non-phosphorylated form of the immunizing peptide.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000 - 1:25,000
WB:	2µg/mL

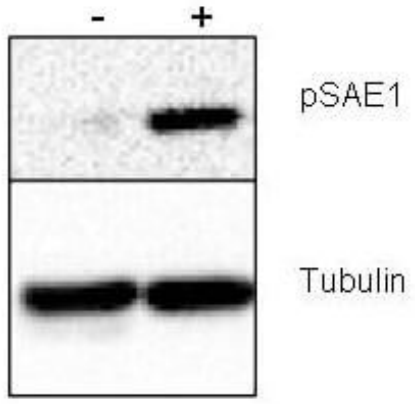
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	0.71 mg/ml
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is three (3) months from date of receipt.

Images



Western Blot
Western blot using Rockland's Rabbit anti-SAE1 pS185 antibody shows detection of phosphorylated SAE1. Left lane (-) contains 20 µg human HeLa whole cell protein. Right lane (+) contains 20 µg human HeLa whole cell protein from cells pre-treated with phosphatase inhibitor cocktail to prevent dephosphorylation of the target. Proteins were separated on a 10% SDS-PAGE and transferred onto nitrocellulose. After blocking with 5% milk-TBST 1 hr at room temperature, the membrane was probed with the primary antibody diluted to 1:1,000 at room temperature for 3 hr followed by washes and reaction with HRP-conjugated secondary and ECL imaging. Personal communication, Xin-Hua Feng, Baylor College of Medicine, Houston, TX

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