

**ARG59199**  
anti-UBA2 / SAE2 antibodyPackage: 50 µg  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes UBA2 / SAE2
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	UBA2 / SAE2
Species	Human
Immunogen	Recombinant protein corresponding to E449-K564 of Human UBA2 / SAE2.
Conjugation	Un-conjugated
Alternate Names	EC 6.3.2.-; Anthracycline-associated resistance ARX; ARX; SUMO-activating enzyme subunit 2; SAE2; Ubiquitin-like modifier-activating enzyme 2; Ubiquitin-like 1-activating enzyme E1B; HRIHFB2115

### Application Instructions

Application table	Application	Dilution
	FACS	1:150 - 1:500
	ICC/IF	1:200 - 1:1000
	IHC-P	0.5 - 1 µg/ml
	WB	0.1 - 0.5 µg/ml

**Application Note** IHC-P: Antigen Retrieval: Heat mediation was performed in Citrate buffer (pH 6.0) for 20 min.  
\* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

### Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.9% NaCl, 0.2% Na <sub>2</sub> HPO <sub>4</sub> , 0.05% Sodium azide and 4% Trehalose.
Preservative	0.05% Sodium azide
Stabilizer	4% Trehalose
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed

before use.

Note

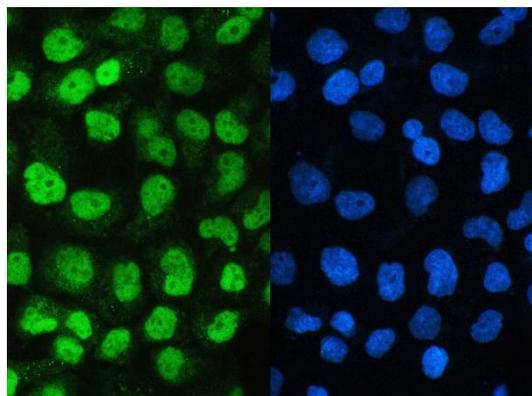
For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

---

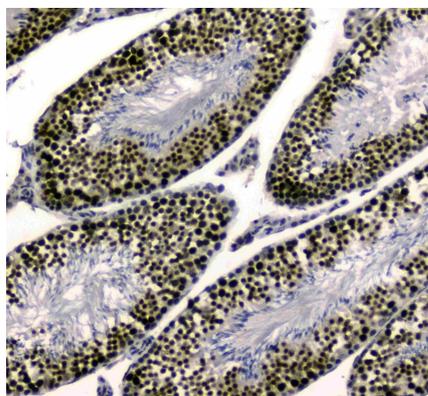
Gene Symbol	UBA2
Gene Full Name	ubiquitin-like modifier activating enzyme 2
Background	Posttranslational modification of proteins by the addition of the small protein SUMO (see SUMO1; MIM 601912), or sumoylation, regulates protein structure and intracellular localization. SAE1 (MIM 613294) and UBA2 form a heterodimer that functions as a SUMO-activating enzyme for the sumoylation of proteins (Okuma et al., 1999 [PubMed 9920803]).[supplied by OMIM, Mar 2010]
Function	The heterodimer acts as a 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. [UniProt]
Calculated Mw	71 kDa
PTM	Sumoylated with SUMO1 and SUMO2/3 and by UBC9. Sumoylation at Lys-236 inhibits enzymatic activity. Sumoylation at the C-terminal lysine cluster plays an essential role in nuclear trafficking. [UniProt]
Cellular Localization	Cytoplasm. Nucleus. Note=Shuttles between the cytoplasm and the nucleus, sumoylation is required either for nuclear translocation or nuclear retention. [UniProt]

## Images



ARG59199 anti-UBA2 / SAE2 antibody ICC/IF image

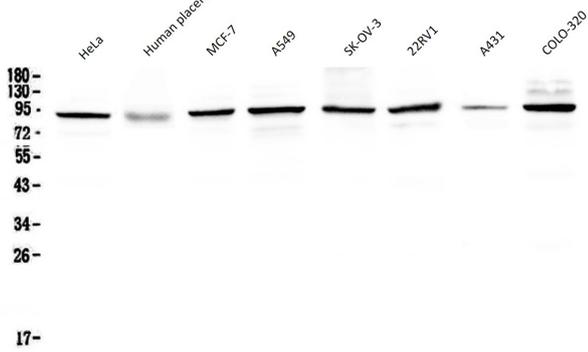
Immunofluorescence: A431 cells were blocked with 10% goat serum and then stained with ARG59199 anti-UBA2 / SAE2 antibody (green) at 2 µg/ml dilution, overnight at 4°C. DAPI (blue) for nuclear staining.



ARG59199 anti-UBA2 / SAE2 antibody IHC-P image

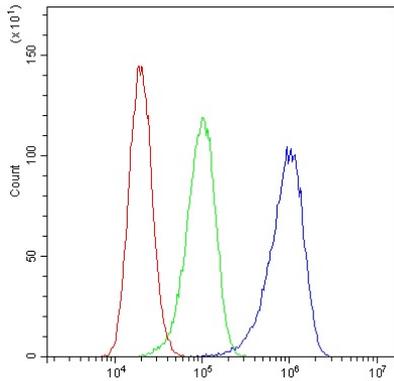
Immunohistochemistry: Paraffin-embedded Human colon cancer tissue. Antigen Retrieval: Heat mediated was performed in Citrate buffer (pH 6.0, epitope retrieval solution) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG59199 anti-UBA2 / SAE2 antibody at 1 µg/ml dilution, overnight at 4°C.

#### ARG59199 anti-UBA2 / SAE2 antibody WB image



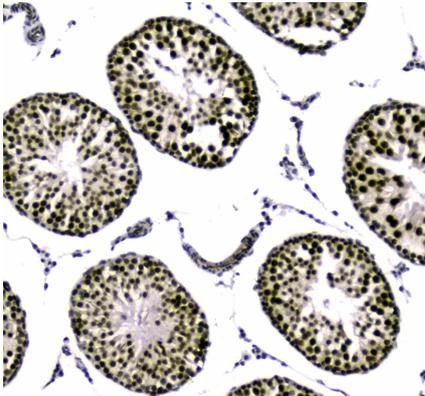
Western blot: 50 µg of samples under reducing conditions. HeLa, Human placenta, MCF-7, A549, SK-OV-3, 22RV1, A431 and COLO-320 whole cell lysates stained with ARG59199 anti-UBA2 / SAE2 antibody at 0.5 µg/ml, overnight at 4°C.

#### ARG59199 anti-UBA2 / SAE2 antibody FACS image



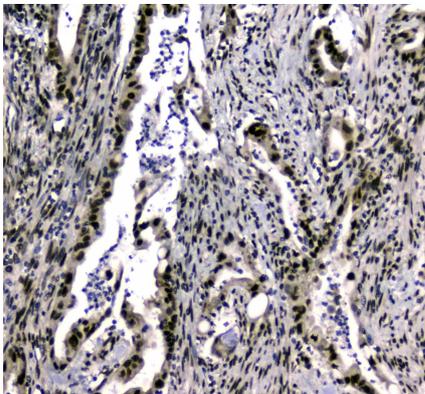
Flow Cytometry: A431 cells were blocked with 10% normal goat serum and then stained with ARG59199 anti-UBA2 / SAE2 antibody (blue) at 1 µg/10<sup>6</sup> cells for 30 min at 20°C, followed by incubation with DyLight<sup>®</sup>488 labelled secondary antibody. Isotype control antibody (green) was rabbit IgG (1 µg/10<sup>6</sup> cells) used under the same conditions. Unlabelled sample (red) was also used as a control.

#### ARG59199 anti-UBA2 / SAE2 antibody IHC-P image

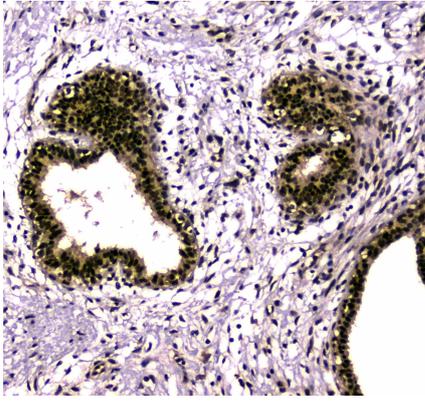


Immunohistochemistry: Paraffin-embedded Human mammary cancer tissue. Antigen Retrieval: Heat mediated was performed in Citrate buffer (pH 6.0, epitope retrieval solution) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG59199 anti-UBA2 / SAE2 antibody at 1 µg/ml dilution, overnight at 4°C.

#### ARG59199 anti-UBA2 / SAE2 antibody IHC-P image

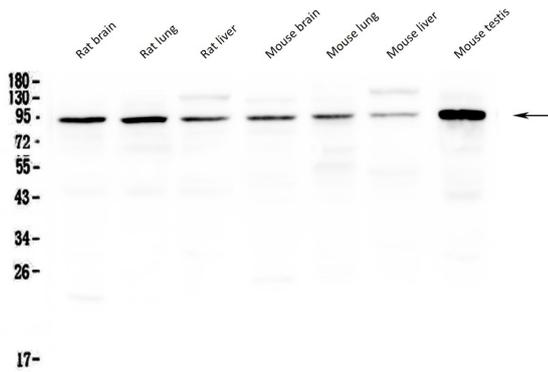


Immunohistochemistry: Paraffin-embedded Rat testis tissue. Antigen Retrieval: Heat mediated was performed in Citrate buffer (pH 6.0, epitope retrieval solution) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG59199 anti-UBA2 / SAE2 antibody at 1 µg/ml dilution, overnight at 4°C.



ARG59199 anti-UBA2 / SAE2 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Mouse testis tissue. Antigen Retrieval: Heat mediated was performed in Citrate buffer (pH 6.0, epitope retrieval solution) for 20 min. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG59199 anti-UBA2 / SAE2 antibody at 1  $\mu\text{g}/\text{ml}$  dilution, overnight at 4°C.



ARG59199 anti-UBA2 / SAE2 antibody WB image

Western blot: 50  $\mu\text{g}$  of samples under reducing conditions. Rat brain, Rat lung, Rat liver, Mouse brain, Mouse lung, Mouse liver and Mouse testis lysates stained with ARG59199 anti-UBA2 / SAE2 antibody at 0.5  $\mu\text{g}/\text{ml}$ , overnight at 4°C.