abcam

ab232619

Anti-ATE1 antibody [EPR13667(2)] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR13667(2)
Purification technique	Affinity purification Protein A

Reactivity data

WB

Expected

Species	Mouse, Rat, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Rat
Dilution info	-
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Mouse

Dilution info	-
Notes	-

Target data

See full target information ATE1

Function	Involved in the post-translational conjugation of arginine to the N-terminal aspartate or glutamate of a protein (PubMed:34893540). This arginylation is required for degradation of the protein via the ubiquitin pathway (PubMed:34893540). Does not arginylate cysteine residues (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab232619 is the carrier-free version of ab199423.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	ATE1 also known as Arginyltransferase 1 is an important enzyme that plays a mechanical role in cellular processes. It is responsible for adding the amino acid arginine to the N-terminus of certain target proteins a modification important for protein stability and function. ATE1 has a molecular mass of approximately 75 kDa. This enzyme is expressed in various tissues with higher expression levels observed in the heart liver and brain indicating its importance in these areas.
Biological function summary	ATE1 acts as a regulator in protein degradation by tagging proteins with arginine marking them for ubiquitination and subsequent proteasomal degradation. This function is critical for controlling the protein turnover and maintaining cellular homeostasis. ATE1 functions independently and is not known to be a part of any larger protein complex emphasizing its specific role in post-translational modification of proteins.
Pathways	This arginylation process by ATE1 integrates into the ubiquitin-proteasome system a pathway significant for protein catabolism. It plays a role in cellular stress responses linking closely with the protein degradation pathways to control damaged or misfolded proteins. ATE1's activity interacts with proteins such as ubiquitin ligases which assist in the tagging and recognition of proteins for degradation ensuring proper proteostasis.
Associated diseases and disorders	ATE1 has been implicated in cardiac hypertrophy and cancer. Altered expression or activity of ATE1 can contribute to the dysregulation of protein turnover in the heart connecting it to cardiac hypertrophy. In cancer abnormal arginylation can affect cellular homeostasis and lead to uncontrollable cell proliferation. ATE1 connects to proteins like N-end rule substrates in the context of these diseases acting as a potential biomarker or therapeutic target for disease intervention.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

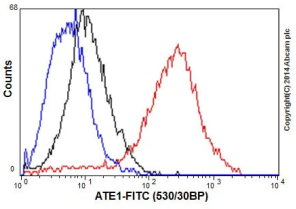
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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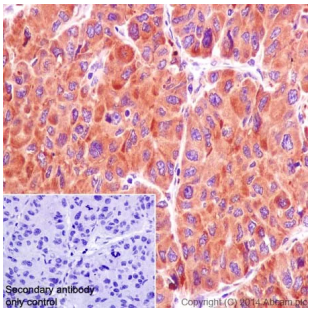
4 product images



Flow Cytometry (Intracellular) - Anti-ATE1 antibody [EPR13667(2)] - BSA and Azide free (ab232619)

ATE1 Flow Cytometry (Intracellular) staining using rabbit Anti-ATE1 antibody

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling ATE1 with ab199423 at 1/220 dilution (red) compared with a rabbit monoclonal IgG isotype control (black) and a unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (FITC) at 1/150 dilution was used as the secondary antibody.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab199423).



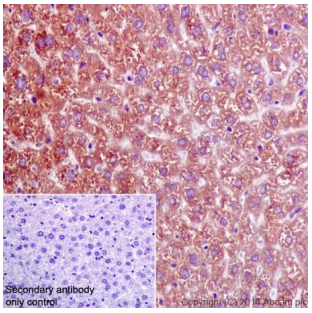
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATE1 antibody [EPR13667(2)] - BSA and Azide free (ab232619)

ATE1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-ATE1 antibody

Immunohistochemical analysis of paraffin-embedded human hepatocellular carcinoma tissue labeling ATE1 with ab199423 at 1/250 followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500. Cytoplasmic staining on human hepatocellular carcinoma tissue is observed (Subcellular location: Nucleus and cytoplasm [UniProt]). Counter-stained with hematoxylin.
Negative control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab199423).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

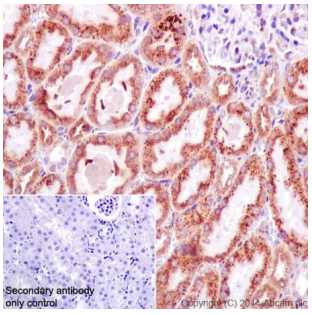


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATE1 antibody [EPR13667(2)] - BSA and Azide free (ab232619)

ATE1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-ATE1 antibody

Immunohistochemical analysis of paraffin-embedded Mouse liver tissue labeling ATE1 with ab199423 at 1/250 followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500. Cytoplasm staining on Mouse liver tissue is observed (Subcellular location: Nucleus and Cytoplasm [UniProt]) . Counter stained with Hematoxylin.
Negative control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab199423).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATE1 antibody [EPR13667(2)] - BSA and Azide free (ab232619)

ATE1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-ATE1 antibody

Immunohistochemical analysis of paraffin-embedded Rat kidney tissue labeling ATE1 with ab199423 at 1/250 followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500. Cytoplasm staining on Rat kidney tissue is observed (Subcellular location: Nucleus and Cytoplasm [UniProt]) . Counter stained with Hematoxylin.
Negative control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab199423).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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