abcam

ab252379

Anti-Bag3 antibody [EPR20207-109-3] - 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	EPR20207-109-3
Purification technique	Affinity purification Protein A

Reactivity data

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

WB

Expected

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

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information BAG3

Function	Co-chaperone and adapter protein that connects different classes of molecular chaperones including heat shock proteins 70 (HSP70s), e.g. HSPA1A/HSP70 or HSPA8/HSC70, and small heat shock proteins (sHSPs), e.g. HSPB8 (PubMed:27884606, PubMed:30559338). Acts as a nucleotide-exchange factor (NEF) promoting the release of ADP from HSP70s, thereby triggering client protein release (PubMed:27884606, PubMed:30559338). Nucleotide release is mediated via BAG3 binding to the nucleotide-binding domain (NBD) of HSP70s, whereas client release is mediated via binding to the substrate-binding domain (SBD) (PubMed:27474739, PubMed:9873016). Has anti-apoptotic activity (PubMed:10597216). Plays a role in the HSF1 nucleocytoplasmic transport (PubMed:26159920).

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

ab252379 is the carrier-free version of ab209251.

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	The Bcl-2-associated athanogene 3 commonly known as Bag3 is a protein with a molecular weight of approximately 74 kDa. It plays an important role in apoptosis regulation and stress responses by interacting with heat shock proteins. Bag3 is expressed in various tissues including the heart skeletal muscles and certain types of neurons. It functions mechanically by binding to chaperones like Hsp70 modulating their activity and helping in protein folding and degradation processes.
Biological function summary	Bag3 contributes to cell survival by assisting in protein homeostasis and mitigating stress-related cellular damage. It acts as a co-chaperone and forms part of complexes with Hsp70 HspB8 and CHIP among others. These interactions enhance the cellular capacity to handle misfolded proteins preventing the aggregation that could lead to cell toxicity. In muscle cells Bag3 plays a role in maintaining structural integrity by participating in the assembly of myofibrils critical for muscle function.
Pathways	The protein is involved in autophagy and apoptosis regulation. It actively participates in the ubiquitin-proteasome system and chaperone-mediated autophagy collaborating closely with proteins like HspB8 and Hsp70. The integration of Bag3 within these pathways highlights its involvement in removing damaged proteins and preserving cellular function during stress conditions. Additionally Bag3 contributes to the regulation of the NF-kB pathway which is involved in the immune response and inflammation.
Associated diseases and disorders	Mutations or dysregulation of Bag3 associate with conditions such as myopathy and certain cancers. In myopathy aberrations in Bag3 affect muscle resilience and repair leading to structural muscle defects. In cancer Bag3's role in inhibiting apoptosis promotes tumor cell survival making it a target for therapeutic interventions. The protein has connections with p53 in cancer contexts where it influences cell death and survival decisions. Understanding Bag3's interactions and functions in these diseases opens new opportunities for developing treatments targeting these pathways.

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

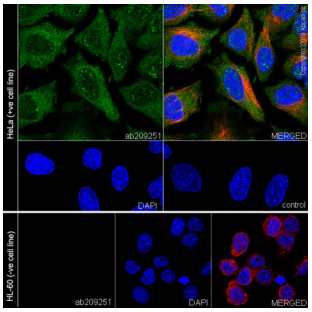
We do not recommend this combination. It is not covered by our product promise.

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.

2 product images

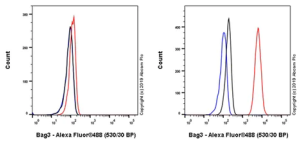


Immunocytochemistry/ Immunofluorescence - Anti-Bag3 antibody [EPR20207-109-3] - BSA and Azide free (ab252379)

Bag3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Bag3 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervix adenocarcinoma epithelial cell) cells labeling Bag3 with ab209251 at 1/60 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic and nuclear staining in HeLa cell line. The nuclear counter stain is DAPI (blue). Counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at a 1/200 dilution (red). The control is the secondary antibody only.
Negative control cell line: HL-60 (PMID: 17974966).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab209251).



Flow Cytometry (Intracellular) - Anti-Bag3 antibody [EPR20207-109-3] - BSA and Azide free (ab252379)

Bag3 Flow Cytometry (Intracellular) staining using rabbit Anti-Bag3 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized HL-60 (human promyelocytic leukemia cell line, Left panel) HeLa (human cervix adenocarcinoma epithelial cell, Right panel) labeling Bag3 with ab209251 at 1/60 (red) compared with a Rabbit monoclonal IgG (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077), at 1/2000 dilution was used as the secondary antibody.
Negative control: HL-60 (PMID: 17974966).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab209251).

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