abcam

ab246225

Anti-Bag3 antibody [EPR20207-58-4]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR20207-58-4
Purification technique	Affinity purification Protein A
Concentration	0.615 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/70
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/70
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	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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.

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

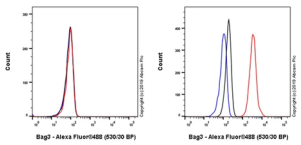
We do not recommend this combination. It is not covered by our product promise.

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.

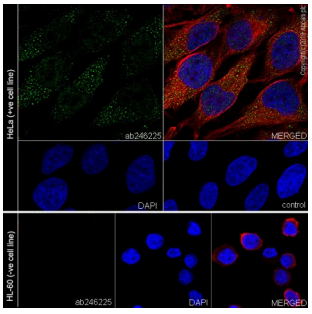
3 product images



Flow Cytometry (Intracellular) - Anti-Bag3 antibody [EPR20207-58-4] (ab246225)

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**) and HeLa (human epithelial cell line from cervix adenocarcinoma) (**Right**) cells labeling Bag3 with ab246225 at 1/70 dilution (red) compared witha Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077), at 1/2000 dilution was used as the secondary antibody.
Negative control: HL-60 (PMID: 17974966).

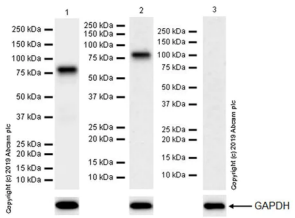


Immunocytochemistry/ Immunofluorescence - Anti-Bag3 antibody [EPR20207-58-4] (ab246225)

Bag3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Bag3 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human epithelial cell line from cervix adenocarcinoma) and HL-60 (human promyelocytic leukemia cell line) cells labeling Bag3 with ab246225 at 1/70 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 weakly nuclear staining in HeLa cell line. **Negative control**: HL-60 (PMID: 17974966).
The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) at 1/200 dilution (red).

Control: PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.



Western blot - Anti-Bag3 antibody [EPR20207-58-4] (ab246225)

Exposure time : Lane 1: 30 seconds; Lane 2: 170 seconds; Lane 3: 180 seconds.
Blocking and dilution buffer: 5% NFDM/TBST.

Either Goat Anti-Rabbit IgG H&L (HRP) (ab97051) or VeriBlot for IP Detection Reagent (HRP) (ab131366), were used for detection.

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 17974966).

Negative control: HL-60 (PMID: 17974966).
All lanes:
Western blot - Anti-Bag3 antibody [EPR20207-58-4] (ab246225) at 1/1000 dilution

Lane 1:
Human skeletal muscle lysate at 20 µg

Lane 2:
HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 20 µg

Lane 3:
HL-60 (human promyelocytic leukemia cell line) whole cell lysate at 20 µg

Predicted band size: 62 kDa

Observed band size: 80 kDa

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