abcam

ab112993

Anti-BAP31 antibody [7A3BB6]

KO Validated

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.5 Preservative: 0.02% Sodium azide Constituents: 99.98% HEPES buffered saline
Form	Liquid
Clonality	Monoclonal
Clone number	7A3BB6
Purification technique	Proprietary technique
Specificity	Shotgun immunization of human HeLa cell lysates into mice. Targets were determined by mass spectrometry and validated by WB, ICC, ELISA pair and other techniques.
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	ab112993 was produced in vitro using hybridomas grown in serum-free medium, and then purified by biochemical fractionation. Monoclonal purity was near homogeneity as judged by SDS-PAGE (>95%).

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1 µg/mL
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	0.5 µg/mL
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	5 µg/mL
Notes	-

Predicted

Species	Mouse, Rat

Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	5 µg/mL
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information BCAP31

Function	Functions as a chaperone protein (PubMed:18287538, PubMed:9396746). Is one of the most abundant endoplasmic reticulum (ER) proteins (PubMed:18287538, PubMed:9396746). Plays a role in the export of secreted proteins in the ER, the recognition of abnormally folded protein and their targeting to the ER associated-degradation (ERAD) (PubMed:18287538, PubMed:9396746). Also serves as a cargo receptor for the export of transmembrane proteins (By similarity). Plays a role in the assembly of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I) by stimulating the translocation of NDUFS4 and NDUFB11 from the cytosol to the mitochondria via interaction with TOMM40 (PubMed:31206022). In response to ER stress, delocalizes from the ER-mitochondria contact sites and binds BCL2 (PubMed:31206022). May be involved in CASP8-mediated apoptosis (PubMed:10958671).

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

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

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

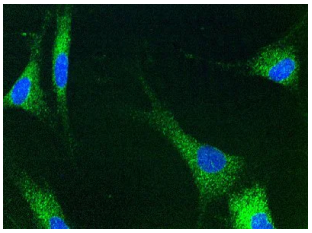
We do not recommend this combination. It is not covered by our product promise.

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.

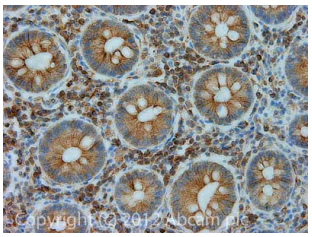
5 product images



Immunocytochemistry/ Immunofluorescence - Anti-BAP31 antibody [7A3BB6] (ab112993)

BAP31 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-BAP31 antibody

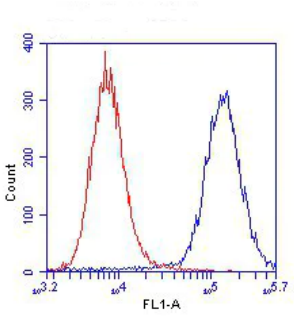
ab112993 at 5 µg/ml staining BAP31 in Human fibroblast cells by Immunocytochemistry (4% paraformaldehyde fixed and 0.1% Triton X-100 permeabilized) followed by Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1 hour (green). The target locates mainly in the endoplasmic reticulum.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BAP31 antibody [7A3BB6] (ab112993)

BAP31 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-BAP31 antibody

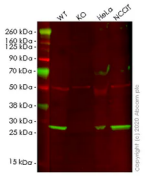
IHC image of BAP31 staining in Human normal colon formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab112993, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Flow Cytometry - Anti-BAP31 antibody [7A3BB6] (ab112993)

BAP31 Flow Cytometry staining using mouse Anti-BAP31 antibody

ab112993 at 1ug/ml staining BAP31 in MeOH-fixed HL60 cells by Flow Cytometry (blue). Isotype control antibody (red).



Western blot - Anti-BAP31 antibody [7A3BB6] (ab112993)

BAP31 Western blot staining using mouse Anti-BAP31 antibody

Lanes 1-4: Merged signal (red and green). Green - ab112993 observed at 28 kDa. Red - loading control ab52901 observed at kDa.
ab112993 Anti-BAP31 antibody [7A3BB6] was shown to specifically react with BAP31 in wild-type HEK293T cells. Loss of signal was observed when knockout cell line ab266634 (knockout cell lysate ab257857) was used. Wild-type and BAP31 knockout samples were subjected to SDS-PAGE. ab112993 and Anti-beta Tubulin [EP1331Y] - Microtubule Marker (ab52901) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 680RD) preadsorbed (ab216777) and Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed (ab216772) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-BAP31 antibody [7A3BB6] (ab112993) at 1/1000 dilution

Lane 1:
Wild-type HEK293T cell lysate at 20 µg

Lane 2:
Western blot - Human BCAP31 (BAP31) knockout HEK-293T cell lysate (ab257857) at 20 µg

Lane 3:
HeLa cell lysate at 20 µg

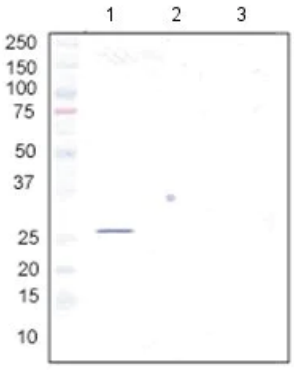
Lane 4:
NCCIT cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (IRDye® 680RD) preadsorbed (ab216777) at 1/10000 dilution

Predicted band size: 28 kDa

Observed band size: 28 kDa



Western blot - Anti-BAP31 antibody [7A3BB6] (ab112993)

All lanes:
Western blot - Anti-BAP31 antibody [7A3BB6] (ab112993) at 0.5 µg/mL

Lane 1:
HepG2 Cell Lysate

Lane 2:
H9C2 Cell Lysate

Lane 3:
MEF Cell Lysate

Predicted band size: 28 kDa

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