abcam

Product datasheet

Anti-Mitochondria antibody [113-1] - BSA and Azide free ab92824

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Overview

Product name	Anti-Mitochondria antibody [113-1] - BSA and Azide free
Description	Mouse monoclonal [113-1] to Mitochondria - BSA and Azide free
Host species	Mouse
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF, Flow Cyt
Species reactivity	**Reacts with:** Human **Does not react with:** Mouse, Rat
Immunogen	Human cell homogenate
Positive control	WB: HeLa cell lysate. ICC/IF: HeLa and U87 cells. IHC-P: Human breast cancer tissue. Flow Cyt: HepG2 cells.
General notes	This antibody is an excellent marker for Human cells in xenographic model research. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Primary antibody notes	This antibody is an excellent marker for Human cells in xenographic model research.
Clonality	Monoclonal
Clone number	113-1

Isotype IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab92824 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

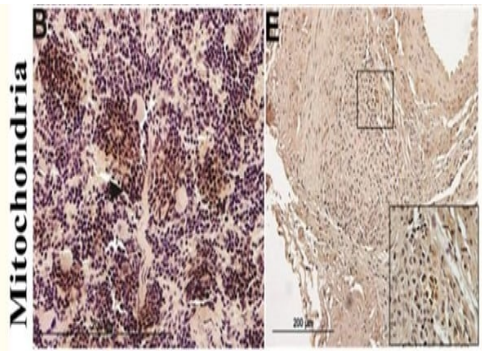
Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 60 kDa.
IHC-P	★★★★★ (4)	1/1000.
ICC/IF	★★★★★ (3)	1/800.
Flow Cyt		1/100. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

Relevance Mitochondria are the power house of the cell. They are distinct organelles with two membranes. Usually they are rod shaped, however they can be round. The outer membrane limits the organelle and the inner membrane is thrown into folds or shelves that project inward and are called "cristae mitochondriales".

Cellular localization Mitochondrial

Images



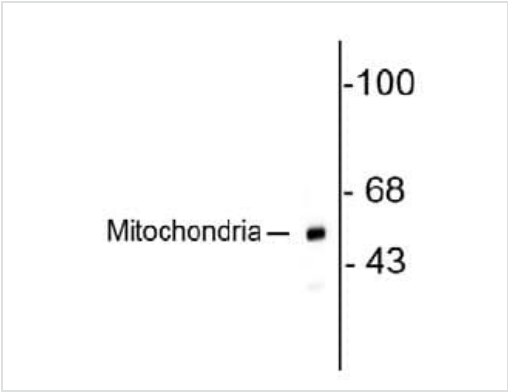
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Mitochondria antibody [113-1] - BSA and Azide free (ab92824)

Immunostained human cells in spleen and temporal artery (TA) xenograft sections demonstrate persistent human PBMC colonization at 28 days

Mitochondria in spleen (B) and temporal artery xenografts (E) were detected using ab92824 at 1/400 dilution in immunohistochemical analysis.

Magnification: 400X for spleen, 200X for TA grafts and 800X for insets.

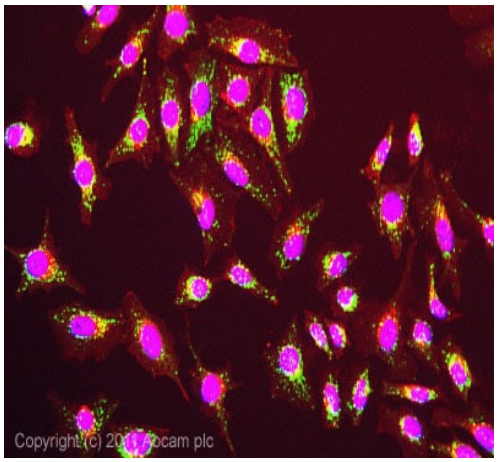
(From Figure 2 of Chen et al)



Western blot - Anti-Mitochondria antibody [113-1] - BSA and Azide free (ab92824)

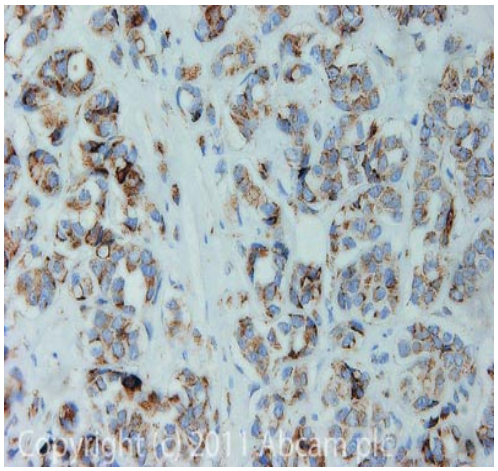
Anti-Mitochondria antibody [113-1] - BSA and Azide free (ab92824) at 1/1000 dilution + HeLa lysate

Observed band size: 60 kDa



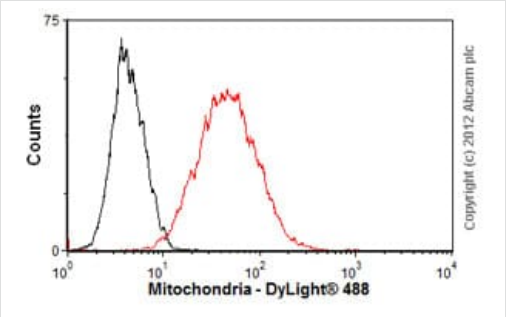
Immunocytochemistry/ Immunofluorescence - Anti-Mitochondria antibody [113-1] - BSA and Azide free (ab92824)

ICC/IF image of ab92824 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab92824, 5µg/ml) overnight at +4°C. The secondary antibody (green) was **ab96879**, DyLight® 488 goat anti-mouse IgG (H+L) used at a 1/250 dilution for 1h.Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



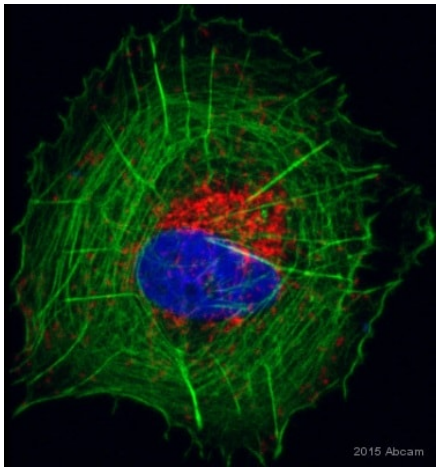
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Mitochondria antibody [113-1] - BSA and Azide free (ab92824)

IHC image of ab92824 staining in Breast Cancer formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ 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 ab92824, 1/1000 dilution, 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-Mitochondria antibody [113-1] - BSA and Azide free (ab92824)

Overlay histogram showing HepG2 cells stained with ab92824 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab92824, 1/100 dilution) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was Mouse IgG1 [ICIGG1] (**ab91353**, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HepG2 cells fixed with 4% paraformaldehyde (10 min) permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Immunocytochemistry/ Immunofluorescence - Anti-Mitochondria antibody [113-1] - BSA and Azide free (ab92824)

Image is courtesy of Virginia Hoglund

ab92824 staining mitochondria in the Human U87 glioblastoma cell by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 10% NBF, permeabilized with Triton X-100 and blocked with 2% serum for 90 minutes at 22°C. Samples were incubated with primary antibody (1/1000 in 0.2% BSA + 2% NGS) for 15 hours at 4°C. An Alexa Fluor® 568-conjugated Goat anti-mouse IgG1 polyclonal was used as the secondary antibody (1/500). Co stained with ActinGreen, 2 drops/ml PBS, 10 min and Hoechst 2ug/ml in H2O 10 min

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