abcam

ab197529

Alexa Fluor® 488 Anti-MCL1 antibody [Y37]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 488
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	Y37
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human

Dilution info	1/100
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	ab199091 - Rabbit monoclonal IgG (Alexa FluorÂ® 488), is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Expected

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

Predicted

Species	Mouse, Rat
Dilution info	-

Notes	-

Target data

See full target information MCL1

Function	Involved in the regulation of apoptosis versus cell survival, and in the maintenance of viability but not of proliferation. Mediates its effects by interactions with a number of other regulators of apoptosis. Isoform 1 inhibits apoptosis. Isoform 2 promotes apoptosis.

Storage

Shipped at conditions	Blue Ice
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, Store in the dark

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.

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Supplementary info

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

Activity summary	MCL1 also known as myeloid cell leukemia sequence 1 is an anti-apoptotic member of the BCL-2 family. This protein plays an important role in regulating cell survival by inhibiting apoptosis. MCL1 has a molecular weight of approximately 37 kDa. It is primarily expressed in the mitochondria and can be found in various tissues including heart liver placenta and kidneys.
Biological function summary	MCL1 protein functions to maintain cell viability by counteracting pro-apoptotic stimuli. It interacts within the cell as part of a complex network involving other BCL-2 family proteins. MCL1 binds and sequesters BH3-only proteins and Bax therefore preventing them from initiating the apoptotic cascade. This interaction helps cells survive under stress conditions by temporarily inhibiting apoptosis.
Pathways	MCL1 plays a significant role in the intrinsic (mitochondrial) apoptosis pathway and the cell signaling pathways that facilitate cell survival and proliferation. In the mitochondrial pathway it works closely with other BCL-2 family members like BCL-xL and BCL-2 itself to control the permeability of the mitochondrial outer membrane and thereby influence cytochrome c release. The PI3K/AKT pathway can also regulate MCL1 leading to increases in its expression and stability which promotes cell survival.
Associated diseases and disorders	Researchers have linked alterations in MCL1 expression to various cancers including leukemia and lymphoma. Overexpression of MCL1 can contribute to chemoresistance in cancer cells by preventing apoptosis. This protein's function is also connected to cardiomyopathies where altered MCL1 expression in cardiac tissue can influence cell death and survival outcomes. BCL-2 and BCL-xL closely related proteins also implicate in these conditions highlighting the central role of the apoptotic regulatory network in disease development.

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

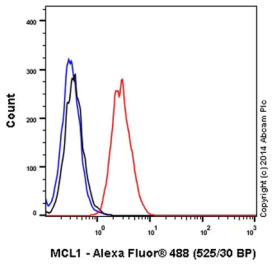
We do not recommend this combination. It is not covered by our product promise.

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.

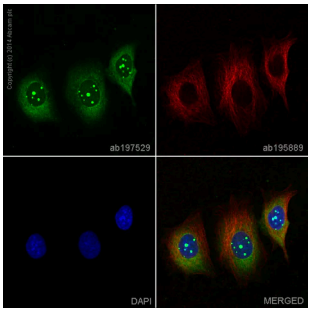
2 product images



Flow Cytometry (Intracellular) - Alexa Fluor® 488 Anti-MCL1 antibody [Y37] (ab197529)

MCL1 Flow Cytometry (Intracellular) staining using rabbit Anti-MCL1 antibody

Overlay histogram showing MCF7 cells stained with ab197529 (red line). The cells were fixed with 4% formaldehyde (10 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 (ab197529, 1/500 dilution) for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) Alexa Fluor® 488 used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.
Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-MCL1 antibody [Y37] (ab197529)

MCL1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-MCL1 antibody

ab197529 staining MCL1 in HeLa cells. The cells were fixed with 100% methanol (5 min), permeabilised in 0.1% Triton X-100 for 5 minutes and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab197529 at 1/100 dilution (shown in green) and ab195889, Mouse monoclonal [DM1A] to alpha Tubulin (Alexa Fluor® 594, shown in red) at 1/167 dilution overnight at +4°C. Nuclear DNA was labelled in blue with DAPI.
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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