abcam

ab33921

Anti-MALT1/MLT antibody [EP603Y]

Anti-MALT1/MLT antibody [EP603Y] (ab33921) is a rabbit monoclonal antibody detecting MALT1/MLT in **Western Blot, Flow Cytometry (Intra), IP, ICC/IF**. Suitable for **Human**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency
- Over 10 publications
- Trusted since 2006

Recombinant | RabMAb | KO Validated | 20ul selling size

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	EP603Y
Purification technique	Affinity purification Protein A
Concentration	0.415 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/50
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/250
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/100
Notes	For unpurified use at 1/100 - 1/1000.ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information MALT1

Function	Protease that enhances BCL10-induced activation: acts via formation of CBM complexes that channel adaptive and innate immune signaling downstream of CARD domain-containing proteins (CARD9, CARD11 and CARD14) to activate NF-kappa-B and MAP kinase p38 pathways which stimulate expression of genes encoding pro-inflammatory cytokines and chemokines (PubMed:11262391, PubMed:18264101, PubMed:24074955). Mediates BCL10 cleavage: MALT1-dependent BCL10 cleavage plays an important role in T-cell antigen receptor-induced integrin adhesion (PubMed:11262391, PubMed:18264101). Involved in the induction of T helper 17 cells (Th17) differentiation (PubMed:11262391, PubMed:18264101). Cleaves RC3H1 and ZC3H12A in response to T-cell receptor (TCR) stimulation which releases their cooperatively repressed targets to promote Th17 cell differentiation (By similarity). Also mediates cleavage of N4BP1 in T-cells following TCR-mediated activation, leading to N4BP1 inactivation (PubMed:31133753). May also have ubiquitin ligase activity: binds to TRAF6, inducing TRAF6 oligomerization and activation of its ligase activity (PubMed:14695475).

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

What is this antibody validated in?
Anti-MALT1/MLT antibody [EP603Y] (ab33921) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

What is the molecular weight of MALT1/MLT?
Anti-MALT1/MLT [EP603Y] (ab33921) specifically detects a band for MALT1/MLT (UniProt: Q9UDY8) at a molecular weight of 92kDa.

Trusted by the scientific community
Anti-MALT1/MLT [EP603Y] (ab33921) was first used in a scientific publication in 2006 and has been cited over 10 times in peer-reviewed journals.

Specificity confirmed
The specificity of Anti-MALT1/MLT antibody [EP603Y] (ab33921) has been confirmed by Western blot testing in MALT1 Knockout HeLa cells.

Other related products
We have a range of other formats of antibody clone [EP603Y] also available for your convenience: ab33921, PE - ab210982, Alexa Fluor® 488 - ab216360, Alexa Fluor® 647 - ab217071, Carrier free - ab239823, APC - ab310860, Alexa Fluor® 594 - ab311710, Alexa Fluor® 568 - ab312985, Alexa Fluor® 555 - ab313191

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

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

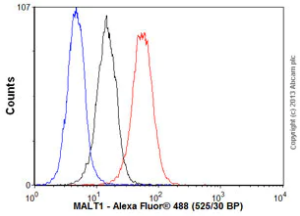
We do not recommend this combination. It is not covered by our product promise.

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.

9 product images

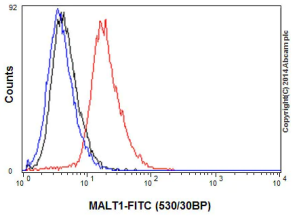


Flow Cytometry (Intracellular) - Anti-MALT1/MLT antibody [EP603Y] (ab33921)

MALT1/MLT Flow Cytometry (Intracellular) staining using rabbit Anti-MALT1/MLT antibody

Overlay histogram showing Jurkat (Human T cell leukemia cell line from peripheral blood) cells stained with unpurified ab33921 (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 (unpurified ab33921, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluorr® 488 goat anti-rabbit IgG (H&L) (ab150077) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1µg/1x10^6 cells) used under the same conditions. 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.

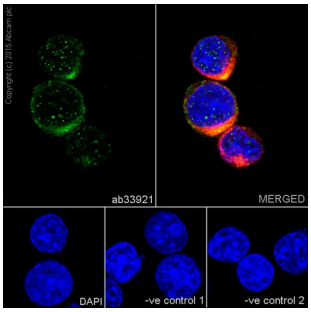
This antibody gave a positive signal in Jurkat cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Flow Cytometry (Intracellular) - Anti-MALT1/MLT antibody [EP603Y] (ab33921)

MALT1/MLT Flow Cytometry (Intracellular) staining using rabbit Anti-MALT1/MLT antibody

Intracellular Flow Cytometry analysis ofJurkat (Human T cell leukemia cell line from peripheral blood) cells labelling MALT1/MLT with purified ab33921 at 1/100 (red). Cells were fixed with 80% methanol. A FITC-conjugated goat anti-rabbit IgG (1/150) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.

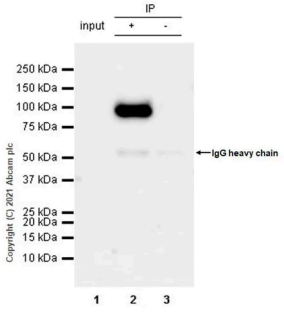


Immunocytochemistry/ Immunofluorescence - Anti-MALT1/MLT antibody [EP603Y] (ab33921)

MALT1/MLT Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-MALT1/MLT antibody

Immunocytochemistry/Immunofluorescence analysis of Ramos cells labelling MALT1/MLT with purified ab33921 at 1/250. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. ab7291, a mouse anti-tubulin (1/500) and ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500) were also used.
Control 1: Primary antibody (1/100) and secondary antibody, ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500).

Control 2: ab7291 (1/1000) and secondary antibody, ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500).



Immunoprecipitation - Anti-MALT1/MLT antibody [EP603Y] (ab33921)

MALT1/MLT was immunoprecipitated from 0.35 mg of Ramos (human Burkitt's lymphoma B lymphocyte) whole cell lysate with ab33921 at 1/50 dilution. Western blot was performed from the immunoprecipitate using ab33921 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/1000 dilution.
Lane 1: Ramos whole cell lysate 10 µg (Input).

Lane 2: ab33921 IP in Ramos whole cell lysate.

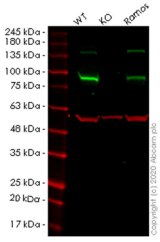
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab33921 in Ramos whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

All lanes:
Immunoprecipitation - Anti-MALT1/MLT antibody [EP603Y] (ab33921)

Predicted band size: 92 kDa

Exposure time: 32s



Western blot - Anti-MALT1/MLT antibody [EP603Y] (ab33921)

MALT1/MLT Western blot staining using rabbit Anti-MALT1/MLT antibody

Lanes 1-4: Merged signal (red and green). Green - ab33921 observed at 92 kDa. Red - loading control ab7291 observed at 50 kDa.
ab33921 Anti-MALT1/MLT antibody [EP603Y] was shown to specifically react with MALT1/MLT in wild-type HeLa cells. Loss of signal was observed when knockout sample ab257149 was used. Wild-type and MALT1/MLT knockout samples were subjected to SDS-PAGE. ab33921 and Anti-alpha Tubulin antibody [DM1A] - Loading Control (ab7291) 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 (IRDye800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye680RD) preadsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-MALT1/MLT antibody [EP603Y] (ab33921) at 1/1000 dilution

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

Lane 2:
MALT1 knockout HeLa cell lysate at 20 µg

Lane 2:
Western blot - Human MALT1 (MLT) knockout HeLa cell line (ab264930)

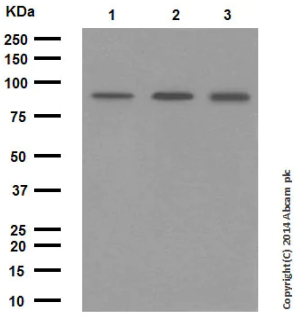
Lane 3:
Ramos cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) at 1/10000 dilution

Predicted band size: 92 kDa

Observed band size: 92 kDa



Western blot - Anti-MALT1/MLT antibody [EP603Y] (ab33921)

MALT1/MLT Western blot staining using rabbit Anti-MALT1/MLT antibody

Blocking and dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-MALT1/MLT antibody [EP603Y] (ab33921) at 1/10000 dilution

Lane 1:
Ramos (Human Burkitt's lymphoma cell line) cell lysate at 10 µg

Lane 2:
HeLa (Human epithelial cell line from cervix adenocarcinoma) cell lysate at 10 µg

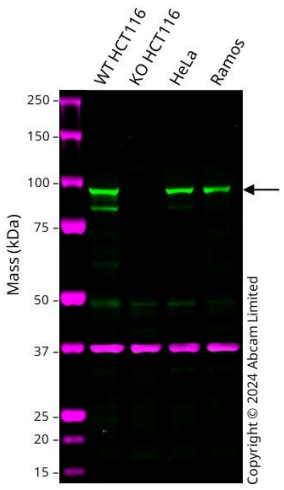
Lane 3:
K562 (Human chronic myelogenous leukemia cell line from bone marrow) cell lysate at 10 µg

Secondary

All lanes:
Peroxidase conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 92 kDa

Observed band size: 92 kDa



Western blot - Anti-MALT1/MLT antibody [EP603Y] (ab33921)

MALT1/MLT Western blot staining using rabbit Anti-MALT1/MLT antibody

Western blot: Rabbit Monoclonal[EP603Y] to MALT1/MLT ab33921 staining at 1/1000 dilution, shown in green; Mouse anti GAPDH (ab8245) loading control staining at 1/20,000 dilution, shown in magenta. A band was observed at kDa in Wild-type HCT 116 ab288559 cell lysates with no signal observed at this size in MALT1 knockout HCT 116 ab286597 cell line. To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3pc Milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20,000 dilution.
All lanes:
Western blot - Anti-MALT1/MLT antibody [EP603Y] (ab33921) at 1/1000 dilution

Lane 1:
Wild-type HCT 116 ab288559 at 20 µg

Lane 2:
Western blot - Human MALT1 knockout HCT116 cell line (ab286597) at 20 µg

Lane 3:
HeLa at 20 µg

Lane 4:
Ramos at 20 µg

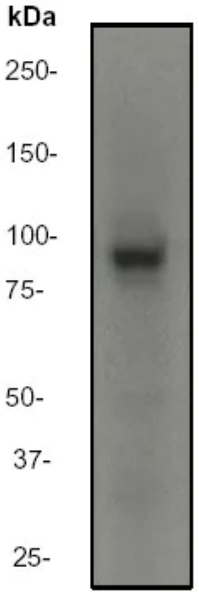
Secondary

All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 92 kDa

Observed band size: 95 kDa



Western blot - Anti-MALT1/MLT antibody [EP603Y] (ab33921)

All lanes:
Western blot - Anti-MALT1/MLT antibody [EP603Y] (ab33921) at 1/2000 dilution

All lanes:
Jurkat (Human T cell leukemia cell line from peripheral blood) cell lysate

Predicted band size: 92 kDa

Observed band size: 92 kDa

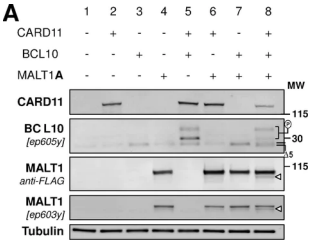


Image collected and cropped by CiteAb under a CC-BY license from the publication

Western blot - Anti-MALT1/MLT antibody [EP603Y] (ab33921)

MALT1/MLT western blot using anti-MALT1/MLT antibody [EP603Y] ab33921. Publication image and figure legend from Ginster, S., Bardet, M., et al., 2017, PLoS One, PubMed 28052131.

ab33921 was used in this publication in western blot. This may not be the same as the application(s) guaranteed by Abcam. For a full list of applications guaranteed by Abcam for ab33921 please see the product overview.

Ectopic CBM reconstitution triggers MALT1 auto-cleavage and ubiquitination.(A) Constituents of the CBM complex ☒ CARD11-L244P, BCL10 and MALT1 (N-terminal FLAG) ☒ were ectopically expressed in HEK293 cells individually or in combination (CBM reconstitution assay). 24h after transfection, lysates were analyzed with anti-CARD11, anti-BCL10 (ep605y), anti-MALT1 (ep603y) and anti-FLAG antibodies. BCL10 cleaved by MALT1 is indicated with Δ5. Phosphorylated BCL10 species are indicated with (P). The white arrow head points to a faster migrating species of MALT1. (B) CBM reconstitution was performed in the presence of z-VRPR-fmk, a covalent peptidic inhibitor of MALT1 protease (10) or by using a catalytically deficient MALT1-C464A mutant form. The white arrow head points to a faster migrating species of MALT1, the black one to a slower running species. (C) MALT1A-824 (WT), R781A, 1–781 and R800A expression constructs were submitted to a CBM reconstitution assay and analyzed by Western Blot with an anti-FLAG antibody to detect MALT1. This identified the main self-cleavage product (white arrow) to result from cleavage at R781. (D) MALT1A-824 WT, C464A and C464A/K644R expression constructs were submitted to a CBM reconstitution assay and analyzed by Western Blot with an anti-FLAG antibody to detect MALT1. This showed that the slower migrating species of MALT1 in our experiments (black arrow) corresponds to the K644-monoubiquitinated MALT1 species identified by Thome and coll. [19]. (E) MALT1A and MALT1B both undergo C-terminal cleavage and ubiquitination. CBM reconstitution was performed with MALT1A-824, R781-cleaved MALT1A (MALT1A-781), MALT1B-813 and R770-cleaved MALT1B (MALT1B-770), in the absence or presence of z-VRPR-fmk. The white arrow head points to faster migrating species of MALT1A and B, the black one to a slower running species of these two isoforms.

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