abcam

Product datasheet

# Anti-MALT1/MLT antibody [EP603Y] ab33921

KO VALIDATED Recombinant RabMAb

11 References 8 Images

## Overview

| | |
|---|---|
| **Product name** | Anti-MALT1/MLT antibody [EP603Y] |
| **Description** | Rabbit monoclonal [EP603Y] to MALT1/MLT |
| **Host species** | Rabbit |
| **Specificity** | This antibody is predicted to detect splice isoform 2 based on sequence analysis. |
| **Tested applications** | **Suitable for:** Flow Cyt (Intra), IP, WB, ICC/IF<br>**Unsuitable for:** IHC-P |
| **Species reactivity** | **Reacts with:** Human |
| **Immunogen** | Synthetic peptide within Human MALT1/MLT aa 1-100 (N terminal). The exact sequence is proprietary.<br>Database link: **Q9UDY8** |
| **Positive control** | WB: Ramos, HeLa, K562. Jurkat whole cell lysate (**ab7899**). ICC/IF: Ramos cells. Flow Cyt (intra): Jurkat cells. IP: Ramos whole cell lysate. |
| **General notes** | This product is a recombinant monoclonal antibody, which offers several advantages including:<br>- High batch-to-batch consistency and reproducibility<br>- Improved sensitivity and specificity<br>- Long-term security of supply<br>- Animal-free production<br>For more information **see here**.<br>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.<br>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information. |

## Properties

| | |
|---|---|
| **Form** | Liquid |
| **Storage instructions** | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. |
| **Storage buffer** | pH: 7.20<br>Preservative: 0.01% Sodium azide |

| | |
|---|---|
| | Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA |
| **Purity** | Protein A purified |
| **Clonality** | Monoclonal |
| **Clone number** | EP603Y |
| **Isotype** | IgG |

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab33921 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 |
|---|---|---|
| **Flow Cyt (Intra)** | | 1/100.<br>For unpurified use at 1/100 - 1/1000.**ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |
| **IP** | | 1/50. |
| **WB** | | 1/1000 - 1/10000. Predicted molecular weight: 92 kDa. |
| **ICC/IF** | | 1/250. |

**Application notes** Is unsuitable for IHC-P.

## Target

**Function** Enhances BCL10-induced activation of NF-kappa-B. Involved in nuclear export of BCL10. Binds to TRAF6, inducing TRAF6 oligomerization and activation of its ligase activity. Has ubiquitin ligase activity. MALT1-dependent BCL10 cleavage plays an important role in T-cell antigen receptor-induced integrin adhesion.

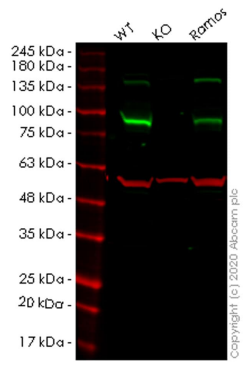
**Tissue specificity** Highly expressed in peripheral blood mononuclear cells. Detected at lower levels in bone marrow, thymus and lymph node, and at very low levels in colon and lung.

**Involvement in disease** Note=A chromosomal aberration involving MALT1 is recurrent in low-grade mucosa-associated lymphoid tissue (MALT lymphoma). Translocation t(11;18)(q21;q21) with BIRC2. This translocation is found in approximately 50% of cytogenetically abnormal low-grade MALT lymphoma.

**Sequence similarities** Belongs to the peptidase C14B family.
Contains 1 death domain.
Contains 2 Ig-like C2-type (immunoglobulin-like) domains.

**Cellular localization** Cytoplasm > perinuclear region. Nucleus. Shuttles between the nucleus and cytoplasm. Found in perinuclear structures together with BCL10.

## Images




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

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

**Lane 1 :** Wild-type HeLa cell lysate
**Lane 2 :** MALT1 knockout HeLa cell lysate
**Lane 3 :** Ramos cell lysate

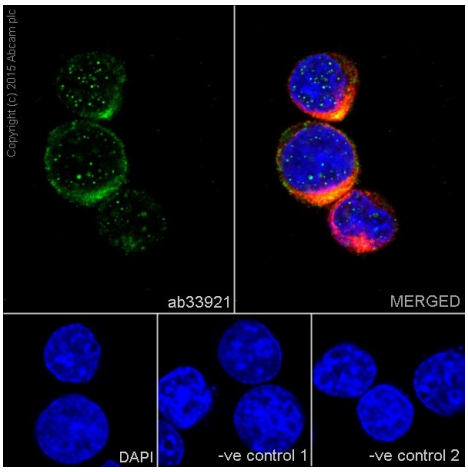
Lysates/proteins at 20 µg per lane.

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

**Predicted band size:** 92 kDa
**Observed band size:** 92 kDa

**Lanes 1-3:** 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 cell line **ab264930** (knockout cell lysate **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 (IRDye®800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

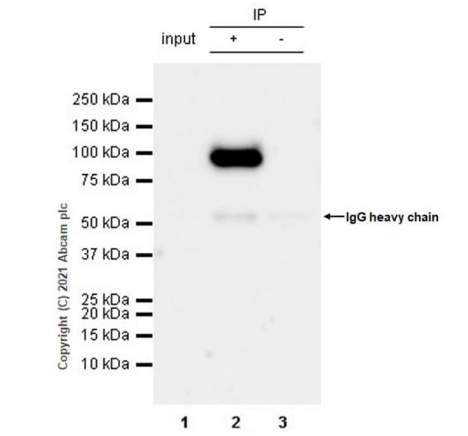



Immunocytochemistry/ Immunofluorescence - Anti-MALT1/MLT antibody [EP603Y] (ab33921)

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)

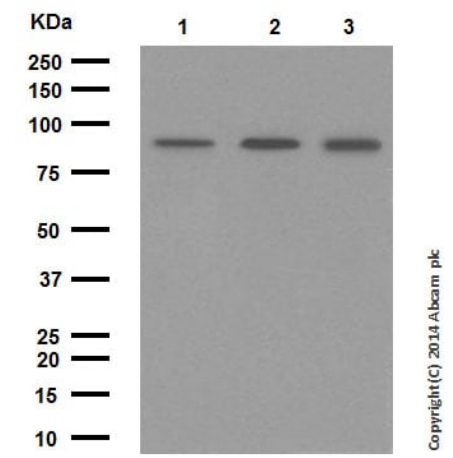
MALT1/MLT was immunoprecipitated from 0.35 mg of Ramos (human Burkitt's lymphoma B lymphocyte) whole cell lysate with ab33921 at 1/50 dilution. Western blot was performed from the immunoprecipitate using ab33921 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for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




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

**All lanes :** Anti-MALT1/MLT antibody [EP603Y] (ab33921) at 1/10000 dilution (purified)

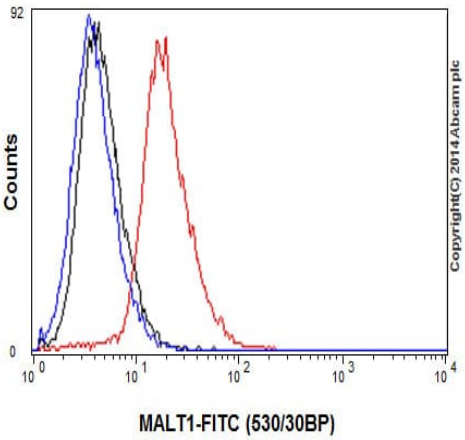
**Lane 1 :** Ramos (Human Burkitt's lymphoma cell line) cell lysate
**Lane 2 :** HeLa (Human epithelial cell line from cervix adenocarcinoma) cell lysate
**Lane 3 :** K562 (Human chronic myelogenous leukemia cell line from bone marrow) cell lysate

Lysates/proteins at 10 µg per lane.

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

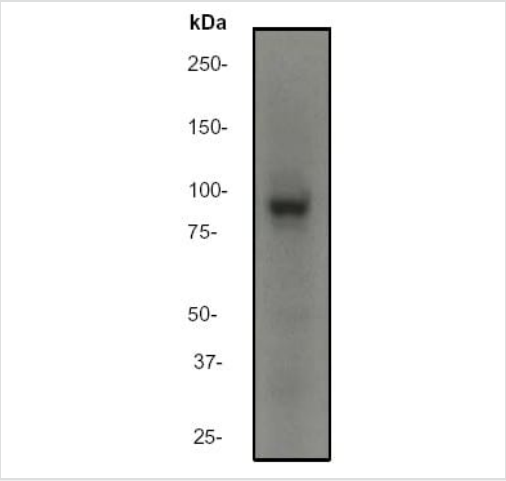
**Predicted band size:** 92 kDa
**Observed band size:** 92 kDa

Blocking and dilution buffer: 5% NFDM/TBST.




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

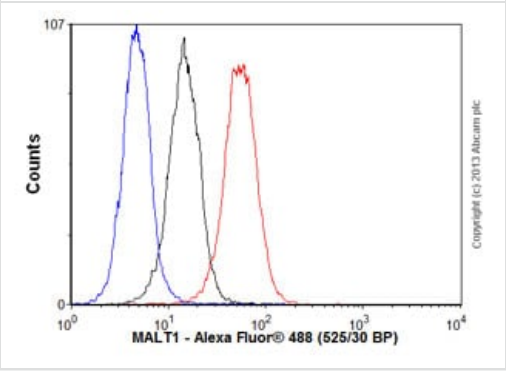
Intracellular Flow Cytometry analysis ofJurkat (Human T cell leukemia cell line from peripheral blood) cells labelling MALT1/MLT with purified ab33921 at 1/100 (red). Cells were fixed with 80% methanol. A FITC-conjugated goat anti-rabbit IgG (1/150) was used as the secondary antibody. Black - Isotype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




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

Anti-MALT1/MLT antibody [EP603Y] (ab33921) at 1/2000 dilution (unpurified) + Jurkat (Human T cell leukemia cell line from peripheral blood) cell lysate

**Predicted band size:** 92 kDa
**Observed band size:** 92 kDa

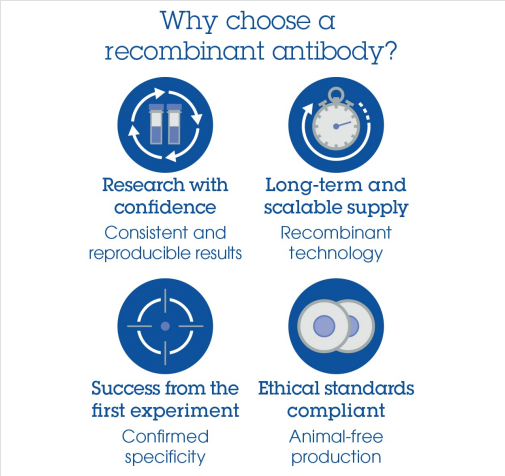



Flow Cytometry (Intracellular) - Anti-MALT1/MLT antibody [EP603Y] (ab33921)

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/1x$10^6$ 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.




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

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