

## **MALT1 Antibody**

Catalog # ASC11894

## **Specification**

# **MALT1 Antibody - Product Information**

Application Primary Accession Other Accession Reactivity Host

Clonality Isotype

Calculated MW

**Application Notes** 

WB, IHC-P, IF, E

O9UDY8

NP\_006776, 5803078 Human, Mouse, Rat

Rabbit Polyclonal

IqG

Predicted: 91 kDa

Observed: 96 kDa KDa

MALT1 antibody can be used for detection of MALT1 by Western blot at  $1 - 2 \mu g/mL$ .

Antibody can also be used for

immunohistochemistry starting at 5  $\mu$ g/mL. For immunofluorescence start at 20  $\mu$ g/mL.

# **MALT1 Antibody - Additional Information**

Gene ID 10892

**Target/Specificity** 

MALT1; MALT1 antibody is human, mouse and rat reactive. At least two isoforms of MALT1 are known to exist; this antibody will detect both isoforms.

## **Reconstitution & Storage**

MALT1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

### **Precautions**

MALT1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

# **MALT1 Antibody - Protein Information**

Name MALT1 {ECO:0000303|PubMed:10523859, ECO:0000312|HGNC:HGNC:6819}

### **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:<a href="http://www.uniprot.org/citations/11262391" target="\_blank">11262391</a>/a>, PubMed:<a href="http://www.uniprot.org/citations/18264101" target="\_blank">18264101</a>/a>, PubMed:<a href="http://www.uniprot.org/citations/24074955" target="\_blank">24074955</a>). Mediates BCL10 cleavage: MALT1-dependent BCL10 cleavage plays an important role in T-cell antigen receptor-induced integrin adhesion (PubMed:<a href="http://www.uniprot.org/citations/11262391"



target="\_blank">11262391</a>, PubMed:<a href="http://www.uniprot.org/citations/18264101" target="\_blank">18264101</a>). Involved in the induction of T helper 17 cells (Th17) differentiation (PubMed:<a href="http://www.uniprot.org/citations/11262391" target="\_blank">11262391</a>, PubMed:<a href="http://www.uniprot.org/citations/18264101" target="\_blank">18264101</a>). 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:<a

href="http://www.uniprot.org/citations/31133753" target="\_blank">31133753</a>). May also have ubiquitin ligase activity: binds to TRAF6, inducing TRAF6 oligomerization and activation of its ligase activity (PubMed:<a href="http://www.uniprot.org/citations/14695475" target="blank">14695475" target="blank">14695475</a>).

### **Cellular Location**

Cytoplasm, perinuclear region. Nucleus Note=Shuttles between the nucleus and cytoplasm. Found in perinuclear structures together with BCL10.

#### **Tissue Location**

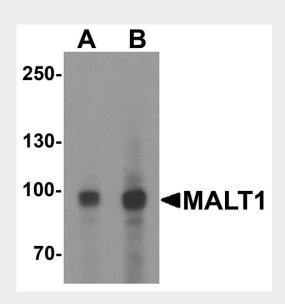
Highly expressed in peripheral blood mononuclear cells. Detected at lower levels in bone marrow, thymus and lymph node, and at very low levels in colon and lung

## **MALT1 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## **MALT1 Antibody - Images**

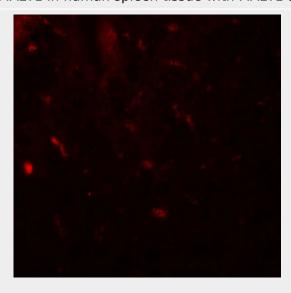


Western blot analysis of MALT1 in EL4 cell lysate with MALT1 antibody at (A) 1 and (2) µg/ml.





Immunohistochemistry of MALT1 in human spleen tissue with MALT1 antibody at 5 µg/mL.



Immunofluorescence of MALT1 in human spleen tissue with MALT1 antibody at 20 µg/mL.

# **MALT1 Antibody - Background**

MALT1 was initially identified as a novel gene that was recurrently rearranged in t(11;18)(q21;q21) mucosa-associated lymphoid tissue lymphomas along with the apoptosis inhibitor protein c-IAP2 (1). MALT1, along with the proteins CARMA1 and Bcl10 form an NF-kappaB-activating complex, termed the CBM signalsome, that acts downstream of lymphocyte antigen receptors as well as many other non-lymphoid cell-surface receptors that play a role in multiple cellular functions (2,3). MALT1 has proteolytic activity, and this activity is critical for full NF-kappaB response in T cell activation (4).

# **MALT1 Antibody - References**

Dielamm J, Baens M, Wlodarska I, et al. The apoptosis inhibitor gene API2 and a novel 18q gene, MLT, are recurrently rearranged in the t(11;18)(q21;q21) associated with mucosa-associated lymphoid tissue lymphomas. Blood 1999; 93:3601-9.

Lin X and Wang D. The roles of CARMA1, Bcl10, and MALT1 in antigen receptor signaling. Semin. Immunol. 2004; 16:429-35.

Rosebeck S, Rehman AO, Lucas PC, et al. From MALT lymphoma to the CBM signalsome: three decades of discovery. Cell Cycle 2011; 10:2485-96.

Staal J, Bekaert T, and Beyaert R. Regulation of NF-kB signaling by caspases and MALT1 paracaspase. Cell Res. 21:40-54.