

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

Q9UDY8

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 μ g/mL. For immunofluorescence start at 20 μ 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:11262391/a>, PubMed:18264101/a>, PubMed:24074955). 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, 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" target="blank">14695475).

Cellular Location

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

Tissue Location

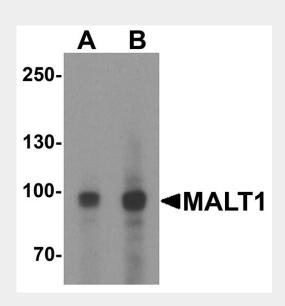
Highly expressed in peripheral blood mononuclear cells. Detected at lower levels in bone marrow, thymus and lymph node, and at very low levels in colon and lung

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

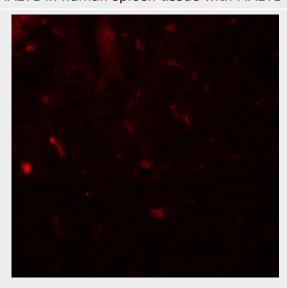


Western blot analysis of MALT1 in EL4 cell lysate with MALT1 antibody at (A) 1 and (2) µg/ml.





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.