10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MALT1 Antibody

Catalog # ASC11894

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9UDY8
Other Accession	NP_006776, 5803078
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	92272
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	MALT1 antibody can be used for detection of MALT1 by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	10892
Other Names	Mucosa-associated lymphoid tissue lymphoma translocation protein 1, 3.4.22.-, MALT lymphoma-associated translocation, Paracaspase, MALT1, MLT
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℃ for three months and -20℃, stable for up to one year.
Precautions	MALT1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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, 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).
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

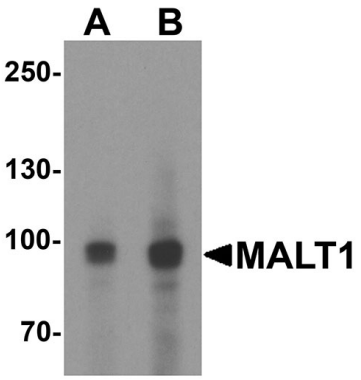
Background

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).

References

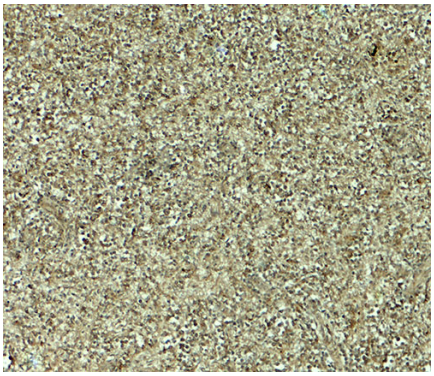
Dielamm J, Baens M, Wlodarska I, et al. The apoptosis inhibitor gene API2 and a novel 18q gene, MLT, are recurrently rearranged in the t(11;18)(q21;q21) associated with mucosa-associated lymphoid tissue lymphomas. Blood 1999; 93:3601-9.
Lin X and Wang D. The roles of CARMA1, Bcl10, and MALT1 in antigen 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.

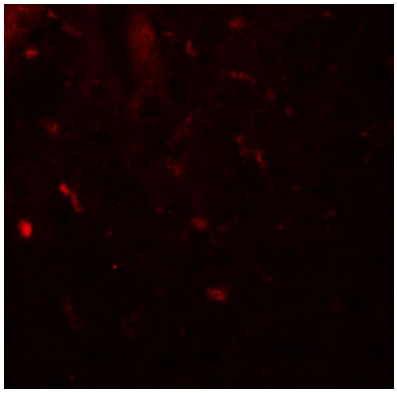
Images



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.