SANTA CRUZ BIOTECHNOLOGY, INC.

MALT1 (H-300): sc-28246

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mucosa-associated lymphoid tissue lymphoma translocation gene 1 (MALT1) is found in extranodal low-grade B-cell lymphomas. MALT1 encodes two Ig-like C2-type domains and fuses with an API2 gene, which is highly expressed in adult lymphoid tissue. The translocation of this MALT1 gene, which maps to human chromosome 18q21.32, and the apoptosis-inhibiting API2 gene results in an increased development of MALT lymphomas and apoptosis inhibition. Sites at which this API2-MALT1 (11;18)(q21;q21) translocation commonly occurs are within human lung and kidney tissue. MALT lymphoma expresses nuclear Bcl10, which mediates the oligomerization and activation of a MALT1 caspase-like domain. The MALT1-API2 fusion protein activates NFκB and creates a signaling pathway, which is influenced by this Bcl10-MALT1 complex. MALT1 mRNA is found in pre-B cells, mature B cells, and plasma cells.

CHROMOSOMAL LOCATION

Genetic locus: MALT1 (human) mapping to 18q21.32; Malt1 (mouse) mapping to 18 E1.

SOURCE

MALT1 (H-300) is a rabbit polyclonal antibody raised against amino acids 525-824 mapping at the C-terminus of MALT1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MALT1 (H-300) is recommended for detection of MALT1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MALT1 (H-300) is also recommended for detection of MALT1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MALT1 siRNA (h): sc-35845, MALT1 siRNA (m): sc-35846, MALT1 shRNA Plasmid (h): sc-35845-SH, MALT1 shRNA Plasmid (m): sc-35846-SH, MALT1 shRNA (h) Lentiviral Particles: sc-35845-V and MALT1 shRNA (m) Lentiviral Particles: sc-35846-V.

Molecular Weight of MALT1: 93 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or Daudi cell lysate: sc-2415.

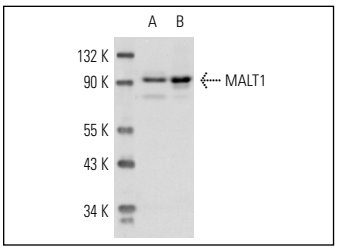
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

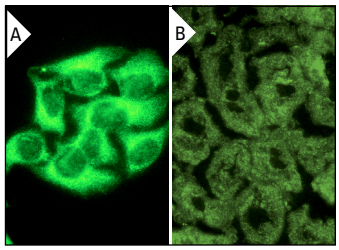
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



MALT1 (H-300): sc-28246. Western blot analysis of MALT1 expression in Daudi (**A**) and HeLa (**B**) whole cell lysates.



MALT1 (H-300): sc-28246. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunofluorescence staining of normal mouse kidney frozen section showing cytoplasmic staining (**B**).

SELECT PRODUCT CITATIONS

1. Oeckinghaus, A., et al. 2007. Malt1 ubiquitination triggers NFκB signaling upon T-cell activation. EMBO J. 26: 4634-4645.
2. Maestre, L., et al. 2007. Generation of a new monoclonal antibody against MALT1 by genetic immunization. Hybridoma 26: 86-91.
3. Carvalho, G., et al. 2010. Interplay between Bcl10, MALT1 and IκBα during T-cell-receptor-mediated NFκB activation. J. Cell Sci. 123: 2375-2380.
4. Palkowitsch, L., et al. 2011. The Ca^{2+}-dependent phosphatase calcineurin controls the formation of the Carma1-Bcl10-Malt1 complex during T cell receptor-induced NFκB activation. J. Biol. Chem. 286: 7522-7534.
5. Dufner, A., et al. 2011. B cell antigen receptor-induced activation of an IRAK4-dependent signaling pathway revealed by a MALT1-IRAK4 double knockout mouse model. Cell Commun. Signal. 9: 6.
6. Kloo, B., et al. 2011. Critical role of PI3K signaling for NFκB-dependent survival in a subset of activated B-cell-like diffuse large B-cell lymphoma cells. Proc. Natl. Acad. Sci. USA 108: 272-277.
7. Staal, J., et al. 2011. T-cell receptor-induced JNK activation requires proteolytic inactivation of CYLD by MALT1. EMBO J. 30: 1742-1752.
8. Gringhuis, S.I., et al. 2012. Dectin-1 is an extracellular pathogen sensor for the induction and processing of IL-1β via a noncanonical caspase-8 inflammasome. Nat. Immunol. 13: 246-254.
9. Yu, J.W., et al. 2015. MALT1 protease activity is required for innate and adaptive immune responses. PLoS ONE 10: e0127083.