

MAP1 Antibody

Catalog # ASC10162

Specification

MAP1 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Application Notes WB, E <u>O96BY2</u> <u>NP_071434</u>, <u>19923584</u> Human, Mouse Rabbit Polyclonal IgG MAP1 antibody can be used for the detection of MAP-1 by Western blot at 1 to 4 μg/mL.

MAP1 Antibody - Additional Information

Gene ID 64112 Other Names MAP1 Antibody: MAP-1, PNMA4, Modulator of apoptosis 1, Paraneoplastic antigen Ma4, MAP-1, modulator of apoptosis 1

Target/Specificity MOAP1;

Reconstitution & Storage

MAP1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions

MAP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

MAP1 Antibody - Protein Information

Name MOAP1 {ECO:0000303|PubMed:19366867, ECO:0000312|HGNC:HGNC:16658}

Function

Retrotransposon-derived protein that forms virion-like capsids (By similarity). Acts as an effector of BAX during apoptosis: enriched at outer mitochondria membrane and associates with BAX upon induction of apoptosis, facilitating BAX-dependent mitochondrial outer membrane permeabilization and apoptosis (PubMed:11060313, PubMed:1060313, PubMed:16199525). Required for death receptor-dependent apoptosis (PubMed:11060313). When associated with RASSF1, promotes BAX conformational change and translocation to mitochondrial membranes in response to TNF and TNFSF10 stimulation (PubMed:<a



href="http://www.uniprot.org/citations/15949439" target="_blank">15949439). Also
promotes autophagy: promotes phagophore closure via association with ATG8 proteins
(PubMed:33783314).
Acts as an inhibitor of the NFE2L2/NRF2 pathway via interaction with SQSTM1: interaction
promotes dissociation of SQSTM1 inclusion bodies that sequester KEAP1, relieving inactivation of
the BCR(KEAP1) complex (PubMed:<a href="http://www.uniprot.org/citations/33393215"
target="_blank">33393215).

Cellular Location

Cytoplasm, cytosol. Mitochondrion outer membrane Extracellular vesicle membrane {ECO:0000250|UniProtKB:Q9ERH6} Note=Forms virion-like extracellular vesicles that are released from cells. {ECO:0000250|UniProtKB:Q9ERH6}

Tissue Location Widely expressed, with high levels in heart and brain.

MAP1 Antibody - Protocols

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

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

MAP1 Antibody - Images



Western blot analysis of MAP-1 in EL4 cell lysate with MAP-1 antibody (IN) at (A) 1, (B) 2, and (C) 4 μ g/mL.

MAP1 Antibody - Background

MAP1 Antibody: Apoptosis plays a major role in normal organism development, tissue homeostasis, and removal of damaged cells. Disruption of this process has been implicated in a variety of diseases such as cancer. Members of the Bcl-2 family are known to be critical regulators of this process. These proteins are characterized by the presence of several conserved motifs termed Bcl-2



homology (BH) domains. A related protein termed MAP-1 has recently been identified. This protein contains a BH3-like domain and induces caspase-dependent apoptosis in mammalian cells when overexpressed. It forms homodimers and associates with Bcl-2 family members such as Bax, Bcl-2, and Bcl-XL in vitro and in vivo. It has been suggested that MAP-1 associates with the tumor suppressor RASSF1A following death receptor activation, allowing a conformational change in Bax that leads to cellular apoptosis.

MAP1 Antibody - References

Lockshin RA, Osborne B, and Zakeri Z. Cell death in the third millennium. Cell Death Differ. 2000; 7:2-7.

Cory S, Huang DCS, and Adams JM. The Bcl-2 family: roles in cell survival and oncogenesis. Oncogene 2003; 22:8590-607.

Heiser D, Labi V, Erlacher M, et al. The Bcl-2 protein family and its role in the development of neoplastic disease. Exp. Geron. 2004; 39:1125-35.

Tan KO, Tan KML, Chan S-L, et al. MAP-1, a novel proapoptotic protein containing a BH3-like motif that associates with Bax through its Bcl-2 homology domains. J. Biol. Chem. 2001; 276:2802-7.