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MAP1 Antibody

Catalog # ASC10162

Product Information

Application	WB, E
Primary Accession	Q96BY2
Other Accession	NP_071434, 19923584
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	39513
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	MAP1 antibody can be used for the detection of MAP-1 by Western blot at 1 to 4 □g/mL.

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℃ for three months and -20℃, 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.

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: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: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: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.

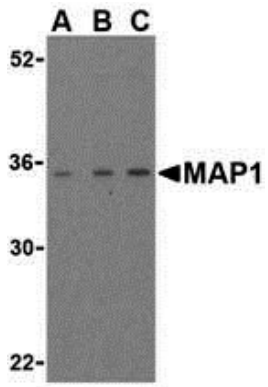
Background

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.

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.

Images



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