

MX1 + MX2 antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP50883

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	P20591
Other Accession	P20592
Reactivity	Pig, Rat, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	75520
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human IFI78/MX1
Epitope Specificity	301-400/662
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm.
SIMILARITY	Belongs to the dynamin family.Contains 1 GED domain.
SUBUNIT	Interacts with TRPC1, TRPC3, TRPC4, TRPC5, TRPC6 and TRPC7.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Members of the Dynamin family include GTPase, microtubule-associated proteins that are involved in cellular trafficking, including microtubule bundling and endocytosis. Mx1, also known as MxA, an interferon (IFN)-induced protein, acquires a high degree of resistance to influenza A virus and the rhabdo-virus vesicular stomatitis virus (VSV), which suggests that Mx1 plays an active role against influenza virus and the rhabdovirus VSV. Mx1 is a cytoplasmic protein that is 63% identical to the Mx2 protein, which lacks antiviral activity. Mx2 is also known as MxB and is localized at the cytoplasmic face of nuclear pores. Mx2 expression is not interferon-dependent and this protein is thought to regulate the efficiency and/or kinetics of nuclear import, a function which may have been usurped by its antiviral relatives.

Additional Information

Gene ID	4599
Other Names	Interferon-induced GTP-binding protein Mx1, Interferon-induced protein p78, IFI-78K, Interferon-regulated resistance GTP-binding protein MxA, Myxoma resistance protein 1, Myxovirus resistance protein 1, Interferon-induced GTP-binding protein Mx1, N-terminally processed, MX1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000

Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	MX1
Function	Interferon-induced dynamin-like GTPase with antiviral activity against a wide range of RNA viruses and some DNA viruses. Its target viruses include negative-stranded RNA viruses and HBV through binding and inactivation of their ribonucleocapsid. May also antagonize reoviridae and asfarviridae replication. Inhibits thogoto virus (THOV) replication by preventing the nuclear import of viral nucleocapsids. Inhibits La Crosse virus (LACV) replication by sequestering viral nucleoprotein in perinuclear complexes, preventing genome amplification, budding, and egress. Inhibits influenza A virus (IAV) replication by decreasing or delaying NP synthesis and by blocking endocytic traffic of incoming virus particles. Enhances ER stress- mediated cell death after influenza virus infection. May regulate the calcium channel activity of TRPCs.
Cellular Location	Cytoplasm. Endoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasm, perinuclear region. Note=Binds preferentially to negatively charged phospholipids (PubMed:21900240). Colocalizes with CCHFV protein N in the perinuclear region (PubMed:15047845)

Background

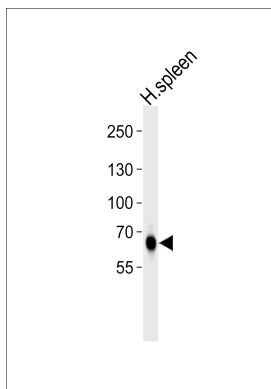
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References

Aebi M.,et al.Mol. Cell. Biol. 9:5062-5072(1989).
Horisberger M.A.,et al.J. Virol. 64:1171-1181(1990).
Tazi-Ahnini R.,et al.Hum. Genet. 106:639-645(2000).
Ku C.C.,et al.Immunol. Cell Biol. 89:173-182(2011).
Ota T.,et al.Nat. Genet. 36:40-45(2004).

Images

Western blot analysis of lysate from human spleen tissue lysate, using MX1 + MX2 antibody(AP50883). AP50883 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary



antibody.Lysate at 20ug.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.