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MX1 Antibody (Ascites)

Mouse Monoclonal Antibody (Mab)
Catalog # AM2061a

Product Information

Application	WB, E
Primary Accession	P20591
Other Accession	P27594, NP_001138397.1
Reactivity	Human
Predicted	Pig
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Clone Names	474CT4.1.5
Calculated MW	75520
Antigen Region	617-646

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
Target/Specificity	This MX1 antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 617-646 amino acids from human MX1.
Dilution	WB~~1:500~16000 E~~Use at an assay dependent concentration.
Format	Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MX1 Antibody (Ascites) is for research use only and not for use in diagnostic or therapeutic procedures.

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)

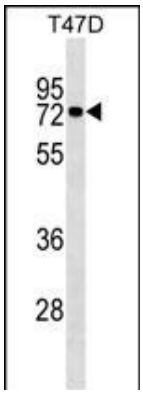
Background

In mouse, the interferon-inducible Mx protein is responsible for a specific antiviral state against influenza virus infection. The protein encoded by this gene is similar to the mouse protein as determined by its antigenic relatedness, induction conditions, physicochemical properties, and amino acid analysis. This cytoplasmic protein is a member of both the dynamin family and the family of large GTPases. Two transcript variants encoding the same protein have been found for this gene.

References

Silva, L.K., et al. Eur. J. Hum. Genet. 18(11):1221-1227(2010)
van der Voort, L.F., et al. Neurology 75(14):1228-1233(2010)
Ching, J.C., et al. J. Infect. Dis. 201(12):1899-1908(2010)
Zhijian, Y., et al. Virol. J. 7, 278 (2010) :
Johnatty, S.E., et al. PLoS Genet. 6 (7), E1001016 (2010) :

Images



MX1 Antibody (Cat. #AM2061a) western blot analysis in T47D cell line lysates (35µg/lane).This demonstrates the MX1 antibody detected the MX1 protein (arrow).