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DATA SHEET

Mouse Anti-MxA/MX1/IFI78K [MD390]: MC0130, MC0130RTU7

Intended Use: For Research Use Only

Description: Interferon-induced GTP-binding protein MxA (also known as MX1, IFI-78K, Interferon-induced protein p78, Myxovirus resistance 1) is encoded by the MX1 gene in human. The MxA proteins belong to the family of large GTPases and are highly homologous with dynamins within their GTP-binding domain. MxA proteins differ from small GTPases and heterotrimeric G proteins in features such as their large size (70–100 kDa), a relatively low affinity for GTP, and a high intrinsic rate of GTP hydrolysis. MxA proteins contain a highly conserved tripartite GTP-binding motif within the N-terminal G domain, while their less conserved C-terminal half serves different functions such as homooligomerization and association with binding partners. Two distinct regions of human MxA, a central interactive region (amino acids 372–540) and a C-terminal leucine zipper motif (amino acids 564–662), are responsible for intra- and intermolecular interactions. MxA/Mx1 is cytosolic, while two MxB/Mx forms exist, a 78 kDa nuclear form and a 76 kDa cytosolic form lacking the N-terminal nuclear localization signal (NLS). Mx proteins are induced by type I IFNs and possess important antiviral properties. Human MxA confers resistance against influenza virus and hantaviruses, including Seoul virus, Puumala virus, Hantaan virus, and Andes virus, in vitro. Human MxB is also reported to inhibit HIV-1 infection by reducing the level of integrated viral DNA.

Specifications:

Clone:	MD390
Source:	Mouse
Isotype:	IgG2k
Reactivity:	Human
Immunogen:	Recombinant fragment aa400-592 of human MxA protein
Localization:	Cytoplasm
Formulation:	Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
Storage:	Store at 2°- 8°C
Applications:	IHC

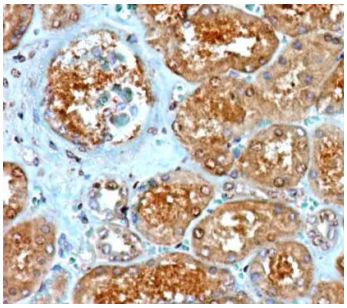
Package:

Description	Catalog No.	Size
MxA/MX1/IFI78K Concentrated	MC0130	1 ml
MxA/MX1/IFI78K Prediluted	MC0130RTU7	7 ml

IHC Procedure*:

Positive Control Tissue:	Spleen, kidney
Concentrated Dilution:	50-200
Pretreatment:	Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
Incubation Time and Temp:	30-60 minutes @ RT
Detection:	Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human kidney stained with anti-MxA using DAB

References:

1. Plasmacytoid Dendritic Cells in Pityriasis Rubra Pilaris. Jana Al-Hage, et al. Ann Dermatol. 2019 Feb;31(1):87-90.
2. IFN-geDriven Intratumoral Microenvironment Exhibits Superior Prognostic Effect Compared with an IFN-aeDriven Microenvironment in Patients with Colon Carcinoma. Sandra Grenz, et al. The American Journal of Pathology, Vol. 183, No. 6, December 2013.

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