

Mouse Anti-MxA/MX1/IFI78K [M143]: MC0130

Intended Use: For Research Use Only

Description: Interferon-induced GTP-binding protein Mx1 (UniProt P20591; also known as IFI-78K, Interferon-induced protein p78, Interferon-inducible protein p78, Interferon-regulated resistance GTP-binding protein MxA, Myxoma resistance protein 1, Myxovirus resistance 1) is encoded by the MX1 (also known as MX, IFI78) gene (Gene ID 4599) in human. The interferon-inducible myxovirus resistance (Mx) proteins belong to the family of large GTPases and are highly homologous with dynamins within their GTP-binding domain. Mx 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. Mx 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 and rodent MxB (Mx2), in particular, confer 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:

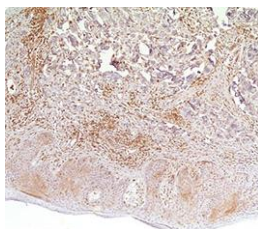
Clone: M130 aka CL143
 Source: Mouse
 Isotype: IgGk
 Reactivity: Human, mouse, rat, guinea pig
 Localization: Cytoplasm
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
 Storage: Store at 2°- 8°C
 Applications: IHC, Flow Cyt., WB
 Package:

Description	Catalog No.	Size
MxA/MX1/IFI78K [M143] Concentrated	MC0130	1 ml

IHC Procedure*:

Positive Control Tissue: Spleen
 Concentrated Dilution: 10-100
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using 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 skin psoriasis stained with anti-MxA using DAB (stains both epithelium and inflammatory cells)

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.