



Mouse Anti-Human MxA Monoclonal Antibody, clone 3D5 (CABT-YN1559)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Binds to an epitope on Myxovirus resistance protein A.
Target	Human Myxovirus Resistance Protein A
Immunogen	MxA
Isotype	IgG
Source/Host	Mouse
Species Reactivity	Human
Clone	3D5
Purification	Affinity purified
Conjugate	Unconjugated
Applications	<p>ELISA (Cap), CLIA, LFIA</p> <p>We recommend the following for sandwich ELISA (Capture - Detection):</p> <p>CABT-YN1559 - CABT-YN1560</p> <p>Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded</p>
Format	Liquid
Concentration	Lot specific
Size	1 ea

Buffer	PBS with 0.1% NaN ₃
Preservative	0.1% NaN ₃
Storage	Store at -20°C
Ship	Wet ice

BACKGROUND

Introduction

Human MxA Protein (Myxovirus resistance protein 1), the product of the MX1 gene, is a 76-kDa protein consisting of 662 amino acid residues and belonging to the dynamic superfamily of large GTPase. MxA Protein plays an important role in antiviral activity in cells against a wide variety of viruses, including influenza, parainfluenza, measles, coxsackie, hepatitis B virus, and Thogoto virus. The viruses are inhibited by MxA protein at an early stage in their life cycle, soon after host cell entry and before genome amplification. The mouse MxA (MX1 GTPase) accumulates in the cell nucleus where it associates with nuclear bodies and inhibits influenza and Thogoto viruses known to replicate in the nucleus. The human MxA protein accumulates in the cytoplasm and endoplasmic reticulum as well. The membrane compartment of endoplasmic reticulum seems to provide an interaction platform that facilitates viral target recognition. MxA appears to detect viral infection by sensing and trapping nucleocapsid-like structures. As a consequence, the viral components become unavailable for the generation of new virus particles. The expression of viral MxA Protein is induced exclusively and in a dose-dependent manner by IFN-alpha and IFN-beta, but not by IFN-gamma, IL-1, TNF-alpha or other cytokines. In clinical diagnostics, MxA protein may offer advantages as a marker for viral infection over the other induced proteins such as 2', 5'-oligoadenylate synthetase, because of its very low basal concentration and long half-life. Several clinical studies have reported on the possible use of MxA protein expression in peripheral blood mononuclear cells as a marker distinguishing viral from bacterial disease, and reliable marker for type I IFN bioavailability during IFN treatment of chronic viral hepatitis and multiple sclerosis.

Keywords	Myxovirus Resistance Protein A; MxA; MxA protein
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GENE INFORMATION

Protein Refseq	None
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