

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MxA/Mx1 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human MxA/Mx1 His412-Leu630 Accession # P20591
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

MxA (orthoMyxovirus-resistant protein A; also IFN-induced protein p78/IFI-78K and Mx1) is a 75-78 kDa member of the Dynamin family, GTPase-binding superfamily of proteins. It is induced by type I and III interferons, and is known to reside in the cytoplasm and associate with the membranes of the ER. Typically, IFN-α is produced when influenza virus RNA (plus other viral dsDNA and RNA) is detected by internal Pattern recognition receptors (PRRs). IFN-α induces the synthesis of 300+ genes, one of which is MxA (Mx1 in mouse). In primates, MxA is cytoplasmic, and interacts with the influenza virus replication cycle at a point proximal to the transcription of genomic RNA into mRNA. By contrast, Mx1 in mouse acts in the nucleus to block primary viral gene transcription. Functionally, MxA is a GTPase, but it is only the binding of GTP to MxA that is associated with antiviral activity. Nucleotide binding to MxA is also associated with nonviral activity, being associated with the potentiation of TRPC Ca²⁺ channel activity. Human MxA is 662 amino acids (aa) in length. It contains one GTPase domain (aa 69-340) and a GED (GTPase Effector Domain) over aa 574-662. There are two utilized phosphorylation sites at Tyr129 and Tyr451. MxA forms homo-dimers, -tetramers and -oligomers, with multimerization suggested to be important for activity. Although IFNs are typically considered to induce Mx gene expression, HSV-1 itself also activates gene transcription. In this case, however, a truncated 54-57 kDa transcript is generated that contains an 84 aa substitution for aa 425-662. Over aa 412-630, human MxA shares 49% aa sequence identity with mouse Mx1.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.