

# Mx2 (N-12): sc-47196

## BACKGROUND

Members of the Dynamin family include GTPase, microtubule-associated proteins that are involved in cellular trafficking, including microtubule bundling and endocytosis. Mx1, also known as MxA, an interferon (IFN)-induced protein, acquires a high degree of resistance to influenza A virus and the rhabdovirus vesicular stomatitis virus (VSV), which suggests that Mx1 plays an active role against influenza virus and the rhabdovirus VSV. Mx1 is a cytoplasmic protein that is 63% identical to the Mx2 protein, which lacks antiviral activity. Mx2 is also known as MxB and is localized at the cytoplasmic face of nuclear pores. Mx2 expression is not interferon-dependent and this protein is thought to regulate the efficiency and/or kinetics of nuclear import, a function which may have been usurped by its antiviral relatives.

## REFERENCES

- Weitz, G., et al. 1989. Purification and characterization of a human Mx protein. *J. Interferon. Res.* 9: 679-689.
- Aebi, M., et al. 1989. cDNA structures and regulation of two interferon-induced human Mx proteins. *Mol. Cell. Biol.* 9: 5062-5072.
- Pavlovic, J., et al. 1990. Resistance to influenza virus and vesicular stomatitis virus conferred by expression of human MxA protein. *J. Virol.* 64: 3370-3375.
- Melen, K., et al. 1996. Human targeting signal and is localized in the heterochromatin region beneath the nuclear envelope. *J. Biol. Chem.* 271: 23478-23486.
- Melen, K. and Julkunen, I. 1998. Nuclear cotransport mechanism of cytoplasmic human MxB protein. *J. Biol. Chem.* 272: 32353-32359.
- Melen, K., et al. 2004. Expression of hepatitis C virus core protein inhibits interferon-induced nuclear import of STATs. *J. Med. Virol.* 73: 536-547.

## CHROMOSOMAL LOCATION

Genetic locus: MX2 (human) mapping to 21q22.3.

## SOURCE

Mx2 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Mx2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47196 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

Mx2 (N-12) is recommended for detection of Mx2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Mx2 siRNA (h): sc-61110, Mx2 shRNA Plasmid (h): sc-61110-SH and Mx2 shRNA (h) Lentiviral Particles: sc-61110-V.

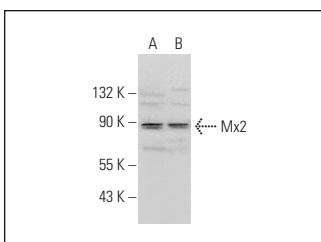
Molecular Weight of Mx2: 73 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Mx2 (N-12): sc-47196. Western blot analysis of Mx2 expression in Jurkat (A) and K-562 (B) whole cell lysates.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Mx1/2/3 (C-1): sc-166412** or **Mx2 (H-7): sc-271527**, our highly recommended monoclonal alternatives to Mx2 (N-12). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Mx1/2/3 (C-1): sc-166412**.