



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# Mx1 (m): 293T Lysate: sc-121876

## BACKGROUND

The Dynamin family of microtubule-associated proteins function as GTPases that are involved in microtubule bundling and endocytosis. In mice, Mx2 (Myxovirus resistance protein 2) and Mx1 (Myxovirus resistance protein 1) are members of the Dynamin family that are involved in the immune response to viral infections. Localized to the cytoplasm, Mx2 contains one GED domain and is expressed in response to viral infection or treatment by IFN- $\alpha$ /IFN- $\beta$ . Once expression is induced, Mx2 accumulates in the cytoplasm and inhibits the replication of vesicular stomatitis virus (VSV), thereby conferring resistance to VSV infection. Unlike Mx2, Mx1 is localized to the nucleus where, upon induction by IFN- $\alpha$ /IFN- $\beta$ , it provides selective resistance to infection by the highly lethal H5N1 influenza virus. In humans, MxA and MxB function in a similar manner to Mx1 and Mx2, conferring resistance to specific target viruses.

## REFERENCES

- Lindenmann, J. 1964. Inheritance of resistance to influenza virus in mice. *Proc. Soc. Exp. Biol. Med.* 116: 506-509.
- Staeli, P., Haller, O., Boll, W., Lindenmann, J. and Weissmann, C. 1986. Mx protein: constitutive expression in 3T3 cells transformed with cloned Mx cDNA confers selective resistance to influenza virus. *Cell* 44: 147-158.
- Staeli, P. and Sutcliffe, J.G. 1988. Identification of a second interferon-regulated murine Mx gene. *Mol. Cell. Biol.* 8: 4524-4528.
- Hug, H., Costas, M., Staeli, P., Aebi, M. and Weissmann, C. 1988. Organization of the murine Mx gene and characterization of its interferon- and virus-inducible promoter. *Mol. Cell. Biol.* 8: 3065-3079.
- Zürcher, T., Pavlovic, J. and Staeli, P. 1992. Mouse Mx2 protein inhibits vesicular stomatitis virus but not influenza virus. *Virology* 187: 796-800.
- Jin, H.K., Takada, A., Kon, Y., Haller, O. and Watanabe, T. 1999. Identification of the murine Mx2 gene: interferon-induced expression of the Mx2 protein from the feral mouse gene confers resistance to vesicular stomatitis virus. *J. Virol.* 73: 4925-4930.
- Lee, S.H. and Vidal, S.M. 2002. Functional diversity of Mx proteins: variations on a theme of host resistance to infection. *Genome Res.* 12: 527-530.
- Salomon, R., Staeli, P., Kochs, G., Yen, H.L., Franks, J., Rehg, J.E., Webster, R.G. and Hoffmann, E. 2007. Mx1 gene protects mice against the highly lethal human H5N1 influenza virus. *Cell Cycle* 6: 2417-2421.
- Tumpey, T.M., Szretter, K.J., Van Hoeven, N., Katz, J.M., Kochs, G., Haller, O., García-Sastre, A. and Staeli, P. 2007. The Mx1 gene protects mice against the pandemic 1918 and highly lethal human H5N1 influenza viruses. *J. Virol.* 81: 10818-10821.

## CHROMOSOMAL LOCATION

Genetic locus: Mx1 (mouse) mapping to 16 C4.

## PRODUCT

Mx1 (m): 293T Lysate represents a lysate of mouse Mx1 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

Mx1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Mx1 antibodies. Recommended use: 10-20  $\mu$ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## RESEARCH USE

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

## PROTOCOLS

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