

Mx2 (m): 293T Lysate: sc-121877

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., Bekisz, J., Zoon, K. and Arnheiter, H. 1989. Purification and characterization of a human Mx protein. *J. Interferon Res.* 9: 679-689.
- Aebi, M., Fah, J., Hurt, N., Samuel, C.E., Thomis, D., Bazzigher, L., Pavlovic, J., Haller, O. and Staeheli, P. 1989. cDNA structures and regulation of two interferon-induced human Mx proteins. *Mol. Cell. Biol.* 9: 5062-5072.
- Pavlovic, J., Zurcher, T., Haller, O. and Staeheli, P. 1990. Resistance to influenza virus and vesicular stomatitis virus conferred by expression of human MxA protein. *J. Virol.* 64: 3370-3375.
- Melén, K., Keskinen, P., Ronni, T., Sareneva, T., Lounatmaa, K. and Julkunen, I. 1996. Human targeting signal and is localized in the heterochromatin region beneath the nuclear envelope. *J. Biol. Chem.* 271: 23478-23486.
- Melén, K. and Julkunen, I. 1998. Nuclear cotransport mechanism of cytoplasmic human MxB protein. *J. Biol. Chem.* 272: 32353-32359.
- Melén, K., Fagerlund, R., Nyqvist, M., Keskinen, P. and Julkunen, I. 2004. Expression of hepatitis C virus core protein inhibits interferon-induced nuclear import of STATs. *J. Med. Virol.* 73: 536-547.
- King, M.C., Raposo, G. and Lemmon, M.A. 2004. Inhibition of nuclear import and cell-cycle progress the dynamin-like GTPase MxB. *Proc. Natl. Acad. Sci. USA* 101: 8957-8962.
- Ozaki, T., Takahashi, K., Kanasaki, H., Iida, K. and Miyazaki, K. 2005. Expression of the type I interferon receptor and the interferon-induced Mx protein in human endometrium during the menstrual cycle. *Fertil. Steril.* 83: 163-170.

CHROMOSOMAL LOCATION

Genetic locus: Mx2 (mouse) mapping to 16 C4.

PRODUCT

Mx2 (m): 293T Lysate represents a lysate of mouse Mx2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

Mx2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Mx2 antibodies. Recommended use: 10-20 µl per lane.

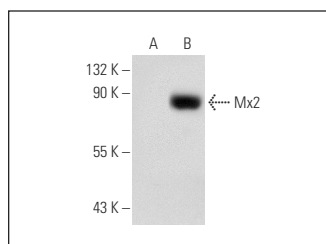
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Mx1/2/3 (C-1): sc-166412 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Mx2 expression in Mx2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™
Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Mx1/2/3 (C-1): sc-166412. Western blot analysis of Mx2 expression in non-transfected: sc-117752 (A) and mouse Mx2 transfected: sc-121877 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.