



# 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) 

# NXT-1 (m): 293T Lysate: sc-127252

## BACKGROUND

Protein transport across the nucleus is a selective, multistep process involving several cytoplasmic factors including Ran. Nuclear transport factor 2 (NTF2) regulates Ran function in a noncatalytic fashion and mediates Ran-GDP targeting to the nucleus. Nucleotide-dependent conformations of Ran alter the site of interaction that would otherwise permit the binding of NTF2 to Ran-GTP. NTF2-related export protein (NXT-1) binds Ran-GTP and promotes nuclear protein export as well as the export of U1 snRNA, tRNA and mRNA. The NXT-1 sequence is 26% identical to NTF2. Known also as p15, NXT-1 localizes to the nuclear pore complex and shuttles between the nucleus and the cytoplasm in mammalian cells. As a necessary cofactor in the TAP-dependent export of intron-containing RNA, NXT-1 binds TAP as well as NXF2 and NXF3. NXT-1 stimulates nuclear protein export through the Crm1-dependent pathway, where NXT-1 binds Crm1. During the final step of this pathway, NXT-1 is required for protein release.

## REFERENCES

1. Moroianu, J. and Blobel, G. 1995. Protein export from the nucleus requires the GTPase Ran and GTP hydrolysis. *Proc. Natl. Acad. Sci. USA* 92: 4318-4322.
2. Dahlberg, J.E. and Lund, E. 1998. Functions of the GTPase Ran in RNA export from the nucleus. *Curr. Opin. Cell Biol.* 10: 400-408.
3. Ribbeck, K., Lipowsky, H., Kent, M., Stewart, M. and Gorlich, D. 1998. NTF2 mediates nuclear import of Ran. *EMBO J.* 17: 6587-6598.
4. Smith, A., Bownawell, A. and Macara, I.G. 1998. Nuclear import of Ran is mediated by the transport factor NTF2. *Curr. Biol.* 8: 1403-1406.
5. Vetter, I.R., Nowak, C., Nishimoto, T., Kulmann, J. and Wittinghofer, A. 1999. Structure of a Ran-binding domain complexed with ran bound to a GTP analogue: implications for nuclear transport. *Nature* 398: 39-46.
6. Black, B.E., Levesque, L., Holaska, J.M., Wood, T.C. and Paschal, B.M. 1999. Identification of an NTF2-related factor that binds Ran-GTP and regulates nuclear protein export. *Mol. Cell. Biol.* 19: 8616-8624.
7. Ossareh-Nazari, B., Maison, C., Black, B.E., Levesque, L., Paschal, B.M. and Dargemont, C. 2000. RanGTP-binding protein NXT1 facilitates nuclear export of different classes of RNA *in vitro*. *Mol. Cell. Biol.* 20: 4562-4571.
8. Herold, A., Suyama, M., Rodrigues, J.P., Braun, I.C., Kutay, U., Carmo-Fonseca, M., Bork, P. and Izaurralde, E. 2000. TAP (NXF1) belongs to a multigene family of putative RNA export factors with a conserved modular architecture. *Mol. Cell. Biol.* 20: 8996-9008.

## CHROMOSOMAL LOCATION

Genetic locus: *Nxt1* (mouse) mapping to 2 G3.

## PRODUCT

NXT-1 (m): 293T Lysate represents a lysate of mouse NXT-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## RESEARCH USE

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

## APPLICATIONS

NXT-1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive NXT-1 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.

## 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.

## PROTOCOLS

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