



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

www.szabo-scandic.com

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

NIFK (h2): 293T Lysate: sc-159682

BACKGROUND

The structural proteins for the complex metalloenzyme nitrogenase include NIFK, NIFD and NIFH. These proteins are all necessary for archaeal and bacterial nitrogen fixation. The NIFK gene encodes the β -subunit of the nitrogenase molybdenum-iron (MoFe) tetramer. NIFK localizes to the nucleolus where it interacts with the fork-head associated domain of the proliferation marker protein Ki-67 in a mitosis-specific and phosphorylation-dependent manner. NIFK is widely expressed in adult tissues, suggesting other functions in addition to its interaction with Ki-67, which is only expressed in proliferating cells.

REFERENCES

- Steinbauer, J., Wenzel, W. and Hess, D. 1988. Nucleotide and deduced amino acid sequences of the *Klebsiella pneumoniae* NIFK gene coding for the β -subunit of nitrogenase MoFe protein. *Nucleic Acids Res.* 16: 7199.
- Ligon, J.M. and Nakas, J.P. 1989. Nucleotide sequence of NIFK and partial sequence of NIFD from *Frankia* species strain FaC1. *Nucleic Acids Res.* 16: 11843 Erratum in 1990 *Nucleic Acids Res.* 18: 1097.
- Li, J.G., Tal, S., Robinson, A.C., Dang, V. and Burgess, B.K. 1990. Analysis of *Azotobacter vinelandii* strains containing defined deletions in the NIFD and NIFK genes. *J. Bacteriol.* 172: 5884-5891.
- White, T.C., Harris, G.S. and Orme-Johnson, W.H. 1992. Electrophoretic studies on the assembly of the nitrogenase molybdenum-iron protein from the *Klebsiella pneumoniae* NIFD and NIFK gene products. *J. Biol. Chem.* 267: 24007-2416.
- Hirsch, A.M., McKhann, H.I., Reddy, A., Liao, J., Fang, Y. and Marshall, C.R. 1995. Assessing horizontal transfer of NIFHDK genes in eubacteria: nucleotide sequence of NIFK from *Frankia* strain HFPCc13. *Mol. Biol. Evol.* 12: 16-27.
- Dominic, B., Chen, Y.B. and Zehr, J.P. 1998. Cloning and transcriptional analysis of the NIFUHDK genes of *Trichodesmium sp.* IMS101 reveals stable NIFD, NIFDK and NIFK transcripts. *Microbiology* 144: 3359-3368.
- Fani, R., Gallo, R. and Liò, P. 2000. Molecular evolution of nitrogen fixation: the evolutionary history of the NIFD, NIFK, NIFE, and NIFN genes. *J. Mol. Evol.* 51: 1-11.
- Takagi, M., Sueishi, M., Saiwaki, T., Kametaka, A. and Yoneda, Y. 2001. A novel nucleolar protein, NIFK, interacts with the fork-head associated domain of Ki-67 antigen in mitosis. *J. Biol. Chem.* 276: 25386-25391.
- Magnusson, C., Norrby, M., Libelius, R. and Tagerud, S. 2003. The NIFK gene is widely expressed in mouse tissues and is upregulated in denervated hind limb muscle. *Cell Biol. Int.* 27: 469-475.

CHROMOSOMAL LOCATION

Genetic locus: NIFK (human) mapping to 2q14.3.

PRODUCT

NIFK (h2): 293T Lysate represents a lysate of human NIFK transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

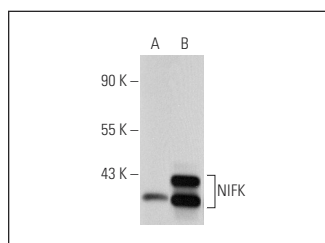
APPLICATIONS

NIFK (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive NIFK antibodies. Recommended use: 10-20 μ l per lane.

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

NIFK (18E148): sc-52904 is recommended as a positive control antibody for Western Blot analysis of enhanced human NIFK expression in NIFK transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



NIFK (18E148): sc-52904. Western blot analysis of NIFK expression in non-transfected: sc-117752 (A) and human NIFK transfected: sc-159682 (B) 293T whole cell lysates.

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 for detailed protocols and support products.