

Nmi (N-16): sc-9482

BACKGROUND

Nmi (for N-Myc interactor) is an interferon inducible protein that associates with multiple transcription factors, including c-Myc, n-Myc, Max, and c-Fos, which contain bHLH-ZIP, bHLH, or Zip domains. Nmi is ubiquitously expressed at low levels throughout various fetal and adult tissues and at higher levels in myeloid leukemias and cell lines overexpressing c-Myc. In addition to binding Myc proteins, Nmi also associates with the Stat family of transcription factors, where it enhances Stat-dependent transcription. Although Nmi lacks an intrinsic DNA binding or activation domain, Nmi enhances the transcriptional activity of the Stat proteins, in response to cytokine stimulation, by recruiting the Stat1 and Stat5 transcriptional coactivators, CREB-binding protein (CBP) and p300. *In vitro* studies indicate that Nmi, expressed in conjunction with CBP, enhances the transcriptional responsiveness of Stat5 to IL-2 stimulation five fold over CBP alone by increasing the affinity of Stat proteins for CBP/p300.

REFERENCES

1. Bao, J., et al. 1996. Isolation and characterization of Nmi, a novel partner of Myc proteins. *Oncogene* 12: 2171-2176.
2. Lebrun, S.J., et al. 1998. Interferon-induced upregulation and cytoplasmic localization of Myc-interacting protein Nmi. *J. Interferon Cytokine Res.* 18: 767-771.
3. Lee, N.D., et al. 1999. Subcellular localization of interferon-inducible Myc/stat-interacting protein Nmi is regulated by a novel IFP 35 homologous domain. *J. Interferon Cytokine Res.* 19: 1245-1252.
4. Gingras, S., et al. 1999. p300/CBP is required for transcriptional induction by interleukin-4 and interacts with Stat6. *Nucleic Acids Res.* 27: 2722-2729.
5. Sakamuro, D., et al. 1999. New Myc-interacting proteins: a second Myc network emerges. *Oncogene* 18: 2942-2954.

CHROMOSOMAL LOCATION

Genetic locus: NMI (human) mapping to 22q13.3.

SOURCE

Nmi (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Nmi 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-9482 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-9482 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.

APPLICATIONS

Nmi (N-16) is recommended for detection of Nmi of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

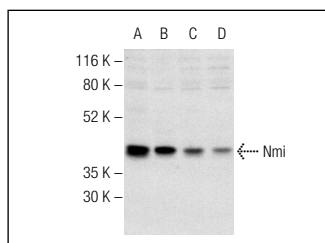
Suitable for use as control antibody for Nmi siRNA (h): sc-36089, Nmi shRNA Plasmid (h): sc-36089-SH and Nmi shRNA (h) Lentiviral Particles: sc-36089-V.

Nmi (N-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

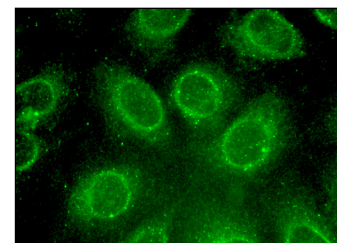
Molecular Weight of Nmi: 38 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, A-431 nuclear extract: sc-2122 or K-562 nuclear extract: sc-2130.

DATA



Nmi (N-16): sc-9482. Western blot analysis of Nmi expression in HeLa (A), A-431 (B), K-562 (C) and Jurkat nuclear extracts.



Nmi (N-16): sc-9482. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Zhang, K., et al. 2007. Stability of Nmi protein is controlled by its association with TIP60. *Mol. Cell. Biochem.* 303: 1-8.
2. Fillmore, R.A., et al. 2009. Nmi (N-Myc interactor) inhibits Wnt/β-catenin signaling and retards tumor growth. *Int. J. Cancer.* E-published.
3. Li, Z., et al. 2012. NMI mediates transcription-independent ARF regulation in response to cellular stresses. *Mol. Biol. Cell* 23: 4635-4646.

RESEARCH USE

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

PROTOCOLS

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



Try **Nmi (D-10): sc-377177** or **Nmi (XX-22): sc-101100**, our highly recommended monoclonal alternatives to Nmi (N-16).