

NIPP1 (A-11): sc-393991

BACKGROUND

NIPP1 (nuclear inhibitor of protein phosphatase 1) is a putative transcription regulator that may be involved in pre-mRNA splicing and cell proliferation. NIPP1 contains a nuclear signaling region named FHA (fork-head associated) domain. The FHA domain has been associated with protein kinases and transcription factors. The NIPP1 locus encodes for three different isoforms termed α , β and γ due to alternative splicing events. The isoforms exhibit RNA binding activity and also act as phosphatase inhibitors. The γ isoform is believed to be a magnesium dependent endoribonuclease that is responsible for cleaving RNA strands. It is mainly found in B cells and T lymphocytes. The α and β isoforms are localized in the brain and kidney. Inactivation of NIPP1 is accomplished by the phosphorylation of Ser 199 or Ser 204. NIPP1 interacts with proteins CDc5L, SAP 155, MELK and EED.

REFERENCES

1. Van Eynde, A., et al. 1996. Molecular cloning of NIPP1, a nuclear inhibitor of protein phosphatase 1, reveals homology with polypeptides involved in RNA processing. *J. Biol. Chem.* 270: 28068-28074.
2. Van Eynde, A., et al. 1999. Organization and alternate splice products of the gene encoding nuclear inhibitor of protein phosphatase 1 (NIPP1). *Eur. J. Biochem.* 261: 291-300.
3. Boudrez, A., et al. 2002. Phosphorylation-dependent interaction between the splicing factors SAP 155 and NIPP1. *J. Biol. Chem.* 277: 31834-31841.
4. Parker, L., et al. 2002. Functional interaction between nuclear inhibitor of protein phosphatase type 1 (NIPP1) and protein phosphatase type 1 (PP1) in *Drosophila*: consequences of over-expression of NIPP1 in flies and suppression by co-expression of PP1. *Biochem. J.* 368: 789-797.

CHROMOSOMAL LOCATION

Genetic locus: PPP1R8 (human) mapping to 1p35.3; Ppp1r8 (mouse) mapping to 4 D2.3.

SOURCE

NIPP1 (A-11) is a mouse monoclonal antibody raised against amino acids 221-351 mapping at the C-terminus of NIPP1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NIPP1 (A-11) is available conjugated to agarose (sc-393991 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393991 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393991 PE), fluorescein (sc-393991 FITC), Alexa Fluor[®] 488 (sc-393991 AF488), Alexa Fluor[®] 546 (sc-393991 AF546), Alexa Fluor[®] 594 (sc-393991 AF594) or Alexa Fluor[®] 647 (sc-393991 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-393991 AF680) or Alexa Fluor[®] 790 (sc-393991 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

NIPP1 (A-11) is recommended for detection of NIPP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

NIPP1 (A-11) is also recommended for detection of NIPP1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NIPP1 siRNA (h): sc-62689, NIPP1 siRNA (m): sc-62690, NIPP1 shRNA Plasmid (h): sc-62689-SH, NIPP1 shRNA Plasmid (m): sc-62690-SH, NIPP1 shRNA (h) Lentiviral Particles: sc-62689-V and NIPP1 shRNA (m) Lentiviral Particles: sc-62690-V.

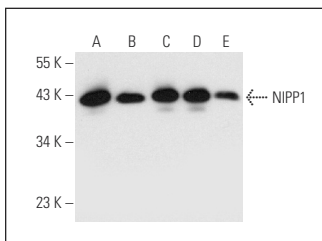
Molecular Weight of NIPP1: 39/41-47 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, KNRK whole cell lysate: sc-2214 or SJRH30 cell lysate: sc-2287.

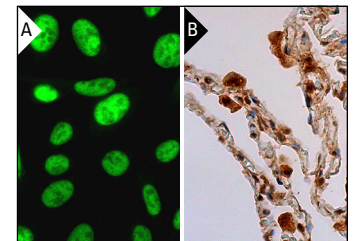
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



NIPP1 (A-11): sc-393991. Western blot analysis of NIPP1 expression in Jurkat (A), KNRK (B), SJRH30 (C), Saos-2 (D) and SK-N-MC (E) whole cell lysates.



NIPP1 (A-11): sc-393991. Immunofluorescence staining of formalin-fixed SW480 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing nuclear and cytoplasmic staining of pneumocytes and macrophages (B).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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