

Ninein (Y-16): sc-50142

BACKGROUND

Ninein is a centrosomal protein necessary for the positioning and anchorage of the microtubule minus-end in epithelial cells. The protein is presumably a centrosome maturation factor, and may play a role in microtubule nucleation. Overexpression of Ninein does not alter nucleation or elongation of microtubules, but suppresses the release of microtubules. Ninein associates with GSK3B (GSK3- β) via its C-terminal domain, and also interacts with C14ORF166; the latter is thought to prevent phosphorylation of Ninein by GSK3- β . Ninein is a component of the core centrosome, where it is arranged in a tubular conformation with its open and closed ends contained within the centrosome. It demonstrates ubiquitous expression and shows predominant expression in heart and skeletal muscle tissues. The coiled coil region from Asn 1611 to Pro 1693 is necessary for targeting Ninein to the centrosome.

REFERENCES

- Hong, Y.R., et al. 2000. Cloning and characterization of a novel human Ninein protein that interacts with the glycogen synthase kinase 3 β . *Biochim. Biophys. Acta* 1492: 513-516.
- Nagase, T., et al. 2000. Prediction of the coding sequences of unidentified human genes. XVIII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 7: 273-281.
- Hong, Y.R., et al. 2001. Genomic organization and molecular characterization of the human Ninein gene. *Biochem. Biophys. Res. Commun.* 279: 989-995.
- Ou, Y.Y., et al. 2002. CEP110 and Ninein are located in a specific domain of the centrosome associated with centrosome maturation. *J. Cell Sci.* 115: 1825-1835.
- Chen, C.H., et al. 2003. Molecular characterization of human Ninein protein: two distinct subdomains required for centrosomal targeting and regulating signals in cell cycle. *Biochem. Biophys. Res. Commun.* 308: 975-983.

CHROMOSOMAL LOCATION

Genetic locus: NIN (human) mapping to 14q22.1; Nin (mouse) mapping to 12 C2.

SOURCE

Ninein (Y-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Ninein of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-50142 P, (100 μ g 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

Ninein (Y-16) is recommended for detection of Ninein of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Ninein (Y-16) is also recommended for detection of Ninein in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Ninein siRNA (h): sc-61195, Ninein siRNA (m): sc-61196, Ninein shRNA Plasmid (h): sc-61195-SH, Ninein shRNA Plasmid (m): sc-61196-SH, Ninein shRNA (h) Lentiviral Particles: sc-61195-V and Ninein shRNA (m) Lentiviral Particles: sc-61196-V.

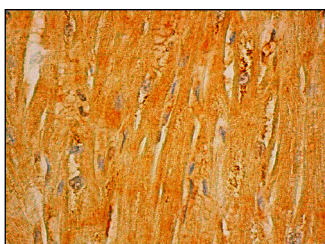
Molecular Weight (predicted) of Ninein: 243 kDa.

Molecular Weight (observed) of Ninein: 184 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Ninein (Y-16): sc-50142. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

RESEARCH USE

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



Try **Ninein (F-5): sc-376420**, our highly recommended monoclonal alternative to Ninein (Y-16).