

Ninein (H-188): sc-292089

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 rather suppresses their release. 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 GSK-3 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.
- Baird, D.H., et al. 2004. Distribution of the microtubule-related protein Ninein in developing neurons. *Neuropharmacology* 47: 677-683.

CHROMOSOMAL LOCATION

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

SOURCE

Ninein (H-188) is a rabbit polyclonal antibody raised against amino acids 289-476 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.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

Ninein (H-188) 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), 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Ninein (H-188) is also recommended for detection of Ninein in additional species, including equine.

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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 (H-188).