SANTA CRUZ BIOTECHNOLOGY, INC.

Ninein (F-5): sc-376420

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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-3β. 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.

CHROMOSOMAL LOCATION

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

SOURCE

Ninein (F-5) is a mouse monoclonal antibody raised against amino acids 289-476 mapping near the N-terminus of Ninein of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ninein (F-5) is available conjugated to agarose (sc-376420 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376420 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376420 PE), fluorescein (sc-376420 FITC), Alexa Fluor® 488 (sc-376420 AF488), Alexa Fluor® 546 (sc-376420 AF546), Alexa Fluor® 594 (sc-376420 AF594) or Alexa Fluor® 647 (sc-376420 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376420 AF680) or Alexa Fluor® 790 (sc-376420 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Ninein (F-5) is recommended for detection of Ninein of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 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.

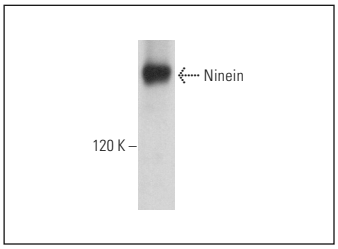
Molecular Weight (observed) of Ninein: 184 kDa.

Positive Controls: U-2 OS cell lysate: sc-2295 or MOLT-4 cell lysate: sc-2233.

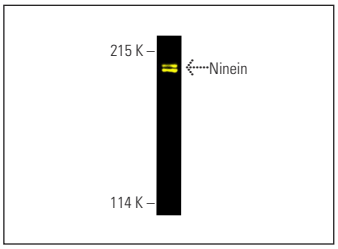
STORAGE

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

DATA



Ninein (F-5): sc-376420. Western blot analysis of Ninein expression in MOLT-4 whole cell lysate.



Ninein (F-5) Alexa Fluor® 488: sc-376420 AF488. Direct fluorescent western blot analysis of Ninein expression in U-2 OS whole cell lysate. Blocked with UltraCruz® Blocking Reagent: sc-516214.

SELECT PRODUCT CITATIONS

1. Rao, A.N., et al. 2016. Sliding of centrosome-unattached microtubules defines key features of neuronal phenotype. J. Cell Biol. 213: 329-341.
2. Hartono, et al. 2019. Nucleoporin Nup58 localizes to centrosomes and mid-bodies during mitosis. Cell Div. 14: 7.
3. Hossain, D., et al. 2020. Requirement of NPHP5 in the hierarchical assembly of basal feet associated with basal bodies of primary cilia. Cell. Mol. Life Sci. 77: 195-212.
4. Chong, W.M., et al. 2020. Super-resolution microscopy reveals coupling between mammalian centriole subdistal appendages and distal appendages. Elife 9: e53580.
5. Magupalli, V.G., et al. 2020. HDAC6 mediates an aggresome-like mechanism for NLRP3 and pyrin inflammasome activation. Science 369: eaas8995.
6. Prasai, A., et al. 2020. The BBSome assembly is spatially controlled by BBS1 and BBS4 in human cells. J. Biol. Chem. 295: 14279-14290.
7. Vergarajauregui, S., et al. 2020. AKAP6 orchestrates the nuclear envelope microtubule-organizing center by linking Golgi and nucleus via AKAP9. Elife 9: e61669.
8. Akoumianaki, T., et al. 2021. Uncoupling of IL-6 signaling and LC3-associated phagocytosis drives immunoparalysis during sepsis. Cell Host Microbe 29: 1277-1293.e6.
9. Chen, F., et al. 2022. Self-assembly of pericentriolar material in interphase cells lacking centrioles. Elife 11: e77892.

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.