

Nup133 (E-4): sc-376699

BACKGROUND

Nuclear pore complexes (NPCs) are the channels for the bi-directional movement of macromolecules between the nucleus and cytoplasm, and contain more than 100 different subunits. Many of them belong to a family called nucleoporins, which are characterized by the presence of O-linked N-acetylglucosamine moieties and a distinctive pentapeptide repeat (XFXFG). Nuclear pore complex protein Nup133 (Nucleoporin Nup133) is located on both the cytoplasmic and nuclear sides of the nuclear pore, localizing to the kinetochores during mitosis. It forms a part of the Nup160 nuclear pore subcomplex together with Nup160, Nup96 and Nup107. This complex is important in RNA export.

CHROMOSOMAL LOCATION

Genetic locus: Nup133 (human) mapping to 1q42.13; Nup133 (mouse) mapping to 8 E2.

SOURCE

Nup133 (E-4) is a mouse monoclonal antibody raised against amino acids 813-1156 mapping at the C-terminus of Nup133 of human origin.

PRODUCT

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

Nup133 (E-4) is available conjugated to agarose (sc-376699 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376699 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376699 PE), fluorescein (sc-376699 FITC), Alexa Fluor® 488 (sc-376699 AF488), Alexa Fluor® 546 (sc-376699 AF546), Alexa Fluor® 594 (sc-376699 AF594) or Alexa Fluor® 647 (sc-376699 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376699 AF680) or Alexa Fluor® 790 (sc-376699 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

Nup133 (E-4) is recommended for detection of Nup133 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 Nup133 siRNA (h): sc-60035, Nup133 siRNA (m): sc-60036, Nup133 shRNA Plasmid (h): sc-60035-SH, Nup133 shRNA Plasmid (m): sc-60036-SH, Nup133 shRNA (h) Lentiviral Particles: sc-60035-V and Nup133 shRNA (m) Lentiviral Particles: sc-60036-V.

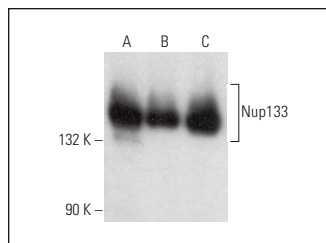
Molecular Weight of Nup133: 130 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812, Ramos cell lysate: sc-2216 or HeLa whole cell lysate: sc-2200.

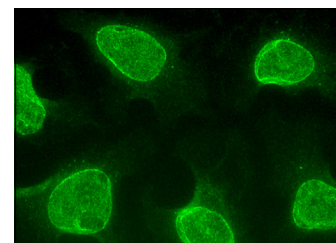
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Nup133 (E-4): sc-376699. Western blot analysis of Nup133 expression in HeLa (A), Ramos (B) and SH-SY5Y (C) whole cell lysates.



Nup133 (E-4): sc-376699. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear envelope localization.

SELECT PRODUCT CITATIONS

- Walker, E.J., et al. 2013. Rhinovirus 3C protease facilitates specific nucleoporin cleavage and mislocalisation of nuclear proteins in infected host cells. *PLoS ONE* 8: e71316.
- Hayes, L.R., et al. 2020. C9orf72 arginine-rich dipeptide repeat proteins disrupt karyopherin-mediated nuclear import. *Elife* 9: e51685.
- Coyne, A.N., et al. 2020. G4C2 repeat RNA initiates a POM121-mediated reduction in specific nucleoporins in C9orf72 ALS/FTD. *Neuron* 107: 1124-1140.e11.
- Neely, A.E., et al. 2023. Nucleoporin downregulation modulates progenitor differentiation independent of nuclear pore numbers. *Commun. Biol.* 6: 1033.

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.

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