

Nup133 (G-11): sc-515253

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.

REFERENCES

- McMorrow, L., et al. 1994. Sequence analysis of cDNA encoding a human nuclear pore complex protein, hnup152. *Biochim. Biophys. Acta* 1217: 219-223.
- Bodoor, K., et al. 1999. Sequential recruitment of NPC proteins to the nuclear periphery at the end of mitosis. *J. Cell Sci.* 112: 2253-2264.
- Belgareh, N., et al. 2001. An evolutionarily conserved NPC subcomplex, which redistributes in part to kinetochores in mammalian cells. *J. Cell Biol.* 154: 1147-1160.
- Vasu, S., et al. 2001. Novel vertebrate nucleoporins Nup133 and Nup160 play a role in mRNA export. *J. Cell Biol.* 155: 339-354.
- Berke, I.C., et al. 2004. Structural and functional analysis of Nup133 domains reveals modular building blocks of the nuclear pore complex. *J. Cell Biol.* 167: 591-597.
- SWISS-PROT/TrEMBL (Q8WUM0). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: NUP133 (human) mapping to 1q42.13; Nup133 (mouse) mapping to 8 E2.

SOURCE

Nup133 (G-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 59-87 near the N-terminus of Nup133 of human origin.

PRODUCT

Each vial contains 200 µg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-515253 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Nup133 (G-11) 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.

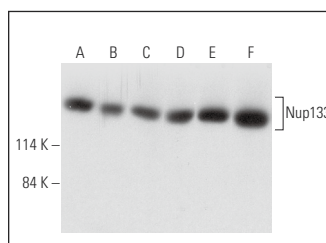
Molecular Weight of Nup133: 130 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Ramos cell lysate: sc-2216 or SH-SY5Y cell lysate: sc-3812.

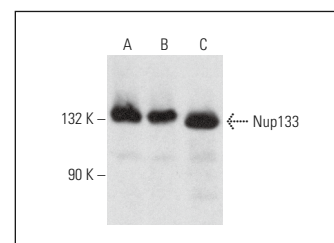
RECOMMENDED SUPPORT REAGENTS

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 (G-11): sc-515253. Western blot analysis of Nup133 expression in HeLa (A) and Hep G2 (B) nuclear extracts and K-562 (C), HeLa (D), Ramos (E) and SH-SY5Y (F) whole cell lysates.



Nup133 (G-11): sc-515253. Western blot analysis of Nup133 expression in HeLa (A), Hep G2 (B) and NCI-H292 (C) whole cell lysates.

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.