SANTA CRUZ BIOTECHNOLOGY, INC.

Nup133 (E-6): sc-376763



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-6) 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 IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Nup133 (E-6) is available conjugated to agarose (sc-376763 AC), 500 μ g/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376763 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376763 PE), fluorescein (sc-376763 FITC), Alexa Fluor[®] 488 (sc-376763 AF488), Alexa Fluor[®] 546 (sc-376763 AF546), Alexa Fluor[®] 594 (sc-376763 AF594) or Alexa Fluor[®] 647 (sc-376763 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-376763 AF680) or Alexa Fluor[®] 790 (sc-376763 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Nup133 (E-6) 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 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).

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, HeLa whole cell lysate: sc-2200 or Hep G2 nuclear extract: sc-364819.

STORAGE

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

RESEARCH USE

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

DATA



Nup133 (E-6) Alexa Fluor® 647: sc-376763 AF647. Direct fluorescent western blot analysis of Nup133 expression in HeIa (A) and Hep G2 (B) nuclear extracts and HeIa (C), K-562 (D), Ramos (E) and SH-SY5Y (F) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214.



Nup133 (E-6): sc-376763. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear envelope localization.

SELECT PRODUCT CITATIONS

- Kane, M., et al. 2018. Nuclear pore heterogeneity influences HIV-1 infection and the antiviral activity of MX2. Elife 7: e35738.
- Lee, C.M., et al. 2019. JLP-centrosome is essential for the microtubulemediated nucleocytoplasmic transport induced by extracellular stimuli. Sci. Adv. 5: eaav0318.
- Jevtic, P., et al. 2019. The nucleoporin ELYS regulates nuclear size by controlling NPC number and nuclear import capacity. EMBO Rep. 20: e47283.
- Marco, S., et al. 2021. Nuclear-capture of endosomes depletes nuclear G-Actin to promote SRF/MRTF activation and cancer cell invasion. Nat. Commun. 12: 6829.
- 5. Spriggs, C.C., et al. 2022. Components of the LINC and NPC complexes coordinately target and translocate a virus into the nucleus to promote infection. PLoS Pathog. 18: e1010824.
- Han, L., et al. 2022. Changes in nuclear pore numbers control nuclear import and stress response of mouse hearts. Dev. Cell 57: 2397-2411.e9.
- Udi, Y., et al. 2023. A general method for quantitative fractionation of mammalian cells. J. Cell Biol. 222: e202209062.
- Mich-Basso, J.D. and Kühn, B. 2023. Protocol to image and quantify nuclear pore complexes using high-resolution laser scanning confocal microscopy. STAR Protoc. 4: 102552.
- Liao, Y., et al. 2024. UBAP2L ensures homeostasis of nuclear pore complexes at the intact nuclear envelope. J. Cell Biol. 223: e202310006.

PROTOCOLS

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA