

# Nup155 (V-23): sc-133858

## BACKGROUND

The nuclear pore complex (NPC) mediates bidirectional macromolecular traffic between the nucleus and cytoplasm in eukaryotic cells and is comprised of more than 100 different subunits. Many of the subunits belong to a family called nucleoporins (Nups), which are characterized by the presence of O-linked-N-acetylglucosamine moieties and a distinctive pentapeptide repeat (XFXFG). Nup155 (nucleoporin 155 kDa), also known as N155, is a 1,391 amino acid protein that localizes to the nucleus and is a functional component of the NPC. Expressed in a variety of tissues, including lung, brain, placenta, liver, heart, skeletal muscle and pancreas, Nup155 plays a key role in the binding and translocation of proteins between the nucleus and the cytoplasm. Nup155 exists as two alternatively spliced isoforms and is subject to phosphorylation, an event which may play a role in the disassembly of the NPC during mitosis.

## REFERENCES

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- Zhang, X., et al. 1999. Localization of a human nucleoporin 155 gene (NUP155) to the 5p13 region and cloning of its cDNA. *Genomics* 57: 144-151.
- Zhang, X., et al. 2002. Genomic organization, transcript variants and comparative analysis of the human nucleoporin 155 (NUP155) gene. *Gene* 288: 9-18.
- Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 606694. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Rayala, H.J., et al. 2004. The mRNA export factor human Gle1 interacts with the nuclear pore complex protein Nup155. *Mol. Cell. Proteomics* 3: 145-155.
- Zhang, X., et al. 2008. Mutation in nuclear pore component Nup155 leads to atrial fibrillation and early sudden cardiac death. *Cell* 135: 1017-1027.
- Ródenas, E., et al. 2009. Early embryonic requirement for nucleoporin Nup35/NPP-19 in nuclear assembly. *Dev. Biol.* 327: 399-409.

## CHROMOSOMAL LOCATION

Genetic locus: NUP155 (human) mapping to 5p13.2.

## SOURCE

Nup155 (V-23) is an affinity purified rabbit polyclonal antibody raised against synthetic Nup155 peptide of human origin.

## PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## STORAGE

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

## APPLICATIONS

Nup155 (V-23) is recommended for detection of Nup155 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Nup155 siRNA (h): sc-92002, Nup155 shRNA Plasmid (h): sc-92002-SH and Nup155 shRNA (h) Lentiviral Particles: sc-92002-V.

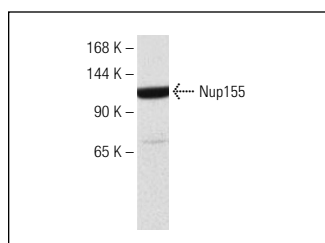
Molecular Weight of Nup155: 155 kDa.

Positive Controls: 721 B whole cell lysate.

## 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).

## DATA



Nup155 (V-23): sc-133858. Western blot analysis of Nup155 expression in 721 B whole cell lysate.

## SELECT PRODUCT CITATIONS

- Kim, S.Y., et al. 2010. Senescence-related functional nuclear barrier by down-regulation of nucleo-cytoplasmic trafficking gene expression. *Biochem. Biophys. Res. Commun.* 391: 28-32.
- Kim, S.Y., et al. 2012. The transcription factor Sp1 is responsible for aging-dependent altered nucleocytoplasmic trafficking. *Aging Cell* 11: 1102-1109.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.