



Nup54 (613J2U): sc-517605

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). Nup54 (nucleoporin 54 kDa) is a 507 amino acid protein that localizes to the nucleus and exists as a component of the NPC, effectively playing a role in protein trafficking across the nuclear membrane. Nup54 exists as multiple alternatively spliced isoforms and is subject to post-translational O-glycosylation. Multiple isoforms of Nup54 exist due to alternative splicing events.

REFERENCES

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2. Hu, T., Guan, T. and Gerace, L. 1996. Molecular and functional characterization of the p62 complex, an assembly of nuclear pore complex glycoproteins. J. Cell Biol. 134: 589-601.
3. Moroianu, J. 1997. Molecular mechanisms of nuclear protein transport. Crit. Rev. Eukaryot. Gene Expr. 7: 61-72.
4. Bodoor, K., Shaikh, S., Enarson, P., Chowdhury, S., Salina, D., Raharjo, W.H. and Burke, B. 1999. Function and assembly of nuclear pore complex proteins. Biochem. Cell Biol. 77: 321-329.
5. Moroianu, J. 1999. Nuclear import and export pathways. J. Cell. Biochem. 32-33: 76-83.
6. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607607. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: NUP54 (human) mapping to 4q21.1.

SOURCE

Nup54 (613J2U) is a mouse monoclonal antibody raised against recombinant NUP54 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

PROTOCOLS

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

APPLICATIONS

Nup54 (613J2U) is recommended for detection of Nup54 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Suitable for use as control antibody for Nup54 siRNA (h): sc-89240, Nup54 shRNA Plasmid (h): sc-89240-SH and Nup54 shRNA (h) Lentiviral Particles: sc-89240-V.

Molecular Weight of Nup54: 54 kDa.