



Nup107 (N-20): sc-27395

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 Nup107 (Nucleoporin Nup107) is an essential part of the nuclear pore complex which is composed of Nup133, Nup160, Nup107 and Nup96. Nup107 is active in assembling peripheral proteins into this complex. The protein, located on both the nuclear and cytoplasmic sides of the pore, is important in RNA export.

REFERENCES

1. Bodoor, K., Shaikh, S., Salina, D., Raharjo, W.H., Bastos, R., Lohka, M., and Burke, B. 1999. Sequential recruitment of NPC proteins to the nuclear periphery at the end of mitosis. *J. Cell Sci.* 112: 2253-2264.
2. McMorrow, I., Bastos, R., Horton, H., and Burke, B. 1994. Sequence analysis of cDNA encoding a human nuclear pore complex protein, hnup152. *Biochim. Biophys. Acta* 1217: 219-223.
3. SWISS-PROT/TrEMBL (P57740). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>
4. Boehmer, T., Enninga, J., Dales, S., Blobel, G. and Zhong, H. 2003. Depletion of a single nucleoporin, Nup107, prevents the assembly of a subset of nucleoporins into the nuclear pore complex. *Proc. Natl. Acad. Sci. U.S.A.* 100: 981-985
5. Harel, A., et al. 2003. Removal of a single pore subcomplex results in vertebrate nuclei devoid of nuclear pores. *Mol Cell* 11: 853-864.
6. Walther, T.C., et al. 2003. The conserved Nup107-160 complex is critical for nuclear pore complex assembly. *Cell* 113: 195-206.

SOURCE

Nup107 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Nup107 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27395 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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 or our catalog for detailed protocols and support products.

APPLICATIONS

Nup107 (N-20) is recommended for detection of Nup107 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.