

# Nup35 (P-17): sc-74762

## 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). Nup35 (nucleoporin 35kDa), also known as mitotic phosphoprotein 44, Nup53, MP44 or NP44, is a 326 amino acid nuclear protein belonging to the Nup53 family and is a component of the nuclear pore complex. Nup35 localizes to the nuclear rim and is also known to associate with nuclear membrane and lamina. Containing one MPPN (mitotic phosphoprotein N<sup>i</sup> end) domain, Nup35 contains multiple phenylalanine-glycine repeats and phosphoserine and phosphothreonine residues. Known to interact with NDC1, Lamin B, Nup205, Nup155 and Nup93, Nup35 likely assists in associations between Mad 1 and NPC.

## REFERENCES

1. Cronshaw, J.M., et al. 2002. Proteomic analysis of the mammalian nuclear pore complex. *J. Cell Biol.* 158: 915-927
2. Hawryluk-Gara, L.A., et al. 2005. Vertebrate Nup53 interacts with the nuclear lamina and is required for the assembly of a Nup93-containing complex. *Mol. Biol. Cell* 16: 2382-2394.
3. Handa, N., et al. 2006. The crystal structure of mouse Nup35 reveals atypical RNP motifs and novel homodimerization of the RRM domain. *J. Mol. Biol.* 363: 114-124.
4. Mansfeld, J., et al. 2006. The conserved transmembrane nucleoporin NDC1 is required for nuclear pore complex assembly in vertebrate cells. *Mol. Cell* 22: 93-103.
5. Pan, Y., et al. 2007. Mislocalization of prelamin A Tyr646Phe mutant to the nuclear pore complex in human embryonic kidney 293 cells. *Biochem. Biophys. Res. Commun.* 355: 78-84.

## CHROMOSOMAL LOCATION

Genetic locus: NUP35 (human) mapping to 2q32.1; Nup35 (mouse) mapping to 2 C3.

## SOURCE

Nup35 (P-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Nup35 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-74762 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.

## APPLICATIONS

Nup35 (P-17) is recommended for detection of Nup35 of mouse, rat and 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)], 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).

Nup35 (P-17) is also recommended for detection of Nup35 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Nup35 siRNA (h): sc-75977, Nup35 siRNA (m): sc-155921, Nup35 shRNA Plasmid (h): sc-75977-SH, Nup35 shRNA Plasmid (m): sc-155921-SH, Nup35 shRNA (h) Lentiviral Particles: sc-75977-V and Nup35 shRNA (m) Lentiviral Particles: sc-155921-V.

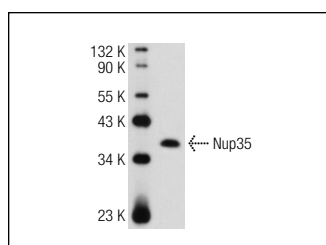
Molecular Weight of Nup35: 35 kDa.

Positive Controls: 293T whole cell lysate.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



Nup35 (P-17): sc-74762. Western blot analysis of Nup35 expression in 293T whole cell lysate.

## 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.