

Npl4 (H-300): sc-134746

BACKGROUND

The NPL4 gene encodes the 608 amino acid, endoplasmic reticulum and nuclear membrane protein Npl4 that forms a complex with p97/Cdc48p and Ufd1p. This complex plays a role in IP₃ receptor processing by recognizing ubiquitinated IP₃ receptors in the endoplasmic reticulum and delivering them to the proteasome for degradation. The Npl4 protein contains eight potential N-myristoylation sites, five potential N-glycosylation sites, several phosphorylation sites and a C-terminal zinc finger motif. This protein is 96% homologous to the rat Npl4 protein, 44% homologous to the *Caenorhabditis elegans* Npl4 protein and 34% homologous to the *Saccharomyces cerevisiae* Npl4 protein. Mutations in the NPL4 gene cause defects in nuclear envelope morphology, nuclear protein import and nuclear poly(A) RNA export.

REFERENCES

1. DeHoratius, C. and Silver, P.A. 1997. Nuclear transport defects and nuclear envelope alterations are associated with mutation of the *Saccharomyces cerevisiae* NPL4 gene. *Mol. Biol. Cell* 7: 1835-1855.
2. Fabre, E. and Hurt, E. 1998. Yeast genetics to dissect the nuclear pore complex and nucleocytoplasmic trafficking. *Annu. Rev. Genet.* 31: 277-313.

CHROMOSOMAL LOCATION

Genetic locus: NPLOC4 (human) mapping to 17q25.3; Nploc4 (mouse) mapping to 11 E2.

SOURCE

Npl4 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Npl4 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.

APPLICATIONS

Npl4 (H-300) is recommended for detection of Npl4 isoforms 1 and 2 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).

Npl4 (H-300) is also recommended for detection of Npl4 isoforms 1 and 2 in additional species, including bovine and avian.

Suitable for use as control antibody for Npl4 siRNA (h): sc-61227, Npl4 siRNA (m): sc-61228, Npl4 shRNA Plasmid (h): sc-61227-SH, Npl4 shRNA Plasmid (m): sc-61228-SH, Npl4 shRNA (h) Lentiviral Particles: sc-61227-V and Npl4 shRNA (m) Lentiviral Particles: sc-61228-V.

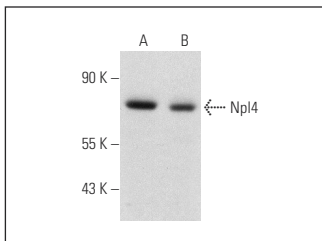
Molecular Weight of Npl4: 69 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, SK-N-MC cell lysate: sc-2237 or SH-SY5Y cell lysate: sc-3812.

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Npl4 (H-300): sc-134746. Western blot analysis of Npl4 expression in SK-N-MC (A) and SH-SY5Y (B) whole cell lysates.

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.


 MONOS
Satisfaction
Guaranteed

Try **Npl4 (D-1): sc-365796**, our highly recommended monoclonal alternative to Npl4 (H-300).