

# NLP (L-20): sc-85793

## BACKGROUND

The EF-hand domain is a twelve amino acid loop motif that is commonly found in proteins that participate in calcium-binding events within the cell. EF-hand domains generally exist in a pair that, together, form a stable four-helix bundle that enables the binding of calcium ions. NLP (ninein-like protein), also known as NINL, is a 1,382 amino acid protein that localizes to both the cytoplasm and the centrosome and contains 4 EF-hand domains. Interacting with  $\gamma$ -Tubulin, NLP is involved in microtubule organization in interphase cells and, when over-expressed, causes lysosomal dispersion and interferes with mitotic spindle assembly. NLP is subject to post-translational phosphorylation by Plk, an event which disrupts the association of NLP with centrosomes.

## REFERENCES

1. Nagase, T., et al. 1999. Prediction of the coding sequences of unidentified human genes. XIII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 6: 63-70.
2. Casenghi, M., et al. 2003. Polo-like kinase 1 regulates NLP, a centrosome protein involved in microtubule nucleation. Dev. Cell 5: 113-125.
3. Casenghi, M., et al. 2005. Phosphorylation of NLP by Plk1 negatively regulates its Dynein-Dynactin-dependent targeting to the centrosome. J. Cell Sci. 118: 5101-5108.
4. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609580. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Wang, Y. and Zhan, Q. 2007. Cell cycle-dependent expression of centrosomal ninein-like protein in human cells is regulated by the anaphase-promoting complex. J. Biol. Chem. 282: 17712-17719.

## CHROMOSOMAL LOCATION

Genetic locus: NINL (human) mapping to 20p11.21; Ninl (mouse) mapping to 2 G3.

## SOURCE

NLP (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NLP of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85793 P, (100  $\mu$ g 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.

## PROTOCOLS

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

## APPLICATIONS

NLP (L-20) is recommended for detection of NLP of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NLP siRNA (h): sc-75931, NLP siRNA (m): sc-150003, NLP shRNA Plasmid (h): sc-75931-SH, NLP shRNA Plasmid (m): sc-150003-SH, NLP shRNA (h) Lentiviral Particles: sc-75931-V and NLP shRNA (m) Lentiviral Particles: sc-150003-V.

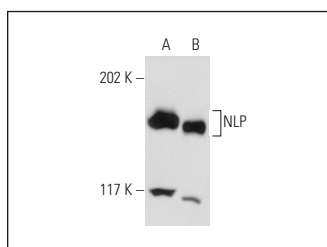
Molecular Weight of NLP: 156 kDa.

Positive Controls: TE671 cell lysate: sc-2416 or Jurkat whole cell lysate: sc-2204.

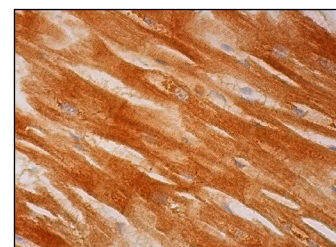
## RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



NLP (L-20): sc-85793. Western blot analysis of NLP expression in TE671 (A) and Jurkat (B) whole cell lysates.



NLP (L-20): sc-85793. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

## RESEARCH USE

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