

PINX1 (N-13): sc-67769

The Power to Question

BACKGROUND

PINX1 (PIN2/TRF1-interacting protein X1), also known as LPTL or LPTS (liver-related putative tumor suppressor) is a ubiquitously expressed protein that localizes to nucleoli and telomere speckles. PINX1 contains one G-patch domain and one telomeric inhibiting domain (TID) at its C-terminus. PINX1 interacts with the telomere protein TRF1 and the telomerase reverse transcriptase TERT. The TID domain of PINX1 specifically interacts with TERT and functions to inhibit its activity, thus participating in the regulation of telomerase activity. Overexpression of PINX1 leads to shortened telomeres, further supporting an inhibitory role of PINX1 on telomerase activity. The depletion of PINX1 significantly increases telomerase activity and may lead to tumorigenicity of cancer cells. This suggests that PINX1 acts as a tumor suppressor and can inhibit cell proliferation. In addition, PINX1 is involved in nucleolar RNA maturation.

REFERENCES

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2. Guglielmi, B. and Werner, M. 2002. The yeast homolog of human PINX1 is involved in rRNA and small nucleolar RNA maturation, not in telomere elongation inhibition. *J. Biol. Chem.* 277: 35712-35719.
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5. Akiyama, Y., et al. 2004. Human PINX1, a potent telomerase inhibitor, is not involved in human gastrointestinal tract carcinoma. *Oncol. Rep.* 11: 871-874.
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7. Campbell, L.J., et al. 2006. hTERT, the catalytic component of telomerase, is downregulated in the haematopoietic stem cells of patients with chronic myeloid leukaemia. *Leukemia* 20: 671-679.
8. Herrmann, G., et al. 2007. Conserved interactions of the splicing factor NTR1/SPP382 with proteins involved in DNA double-strand break repair and telomere metabolism. *Nucleic Acids Res.* 35: 2321-2332.
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CHROMOSOMAL LOCATION

Genetic locus: PINX1 (human) mapping to 8p23.1.

SOURCE

PINX1 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PINX1 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-67769 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

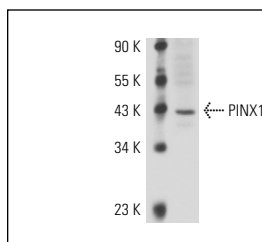
PINX1 (N-13) is recommended for detection of PINX1 of human and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 µg per 100–500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PINX1 (N-13) is also recommended for detection of PINX1 in additional species, including porcine.

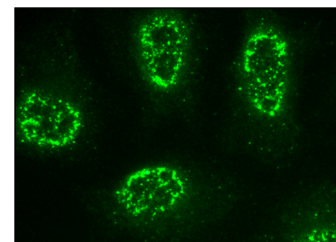
Suitable for use as control antibody for PINX1 siRNA (h): sc-62814, PINX1 shRNA Plasmid (h): sc-62814-SH and PINX1 shRNA (h) Lentiviral Particles: sc-62814-V.

Molecular Weight of PINX1: 45 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Jurkat whole cell lysate: sc-2204 or A-431 whole cell lysate: sc-2201.

DATA

PINX1 (N-13): sc-67769. Western blot analysis of PINX1 expression in Hep G2 nuclear extract.



PINX1 (N-13): sc-67769. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

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.

MONOS
Satisfaction
Guaranteed

Try **PINX1 (D-3): sc-374113** or **PINX1 (E-9): sc-374115**, our highly recommended monoclonal alternatives to PINX1 (N-13).