

PINX1 (D-3): sc-374113

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.

CHROMOSOMAL LOCATION

Genetic locus: PINX1 (human) mapping to 8p23.1; Pinx1 (mouse) mapping to 14 D1.

SOURCE

PINX1 (D-3) is a mouse monoclonal antibody raised against amino acids 1-150 mapping at the N-terminus of PINX1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PINX1 (D-3) is available conjugated to agarose (sc-374113 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374113 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374113 PE), fluorescein (sc-374113 FITC), Alexa Fluor® 488 (sc-374113 AF488), Alexa Fluor® 546 (sc-374113 AF546), Alexa Fluor® 594 (sc-374113 AF594) or Alexa Fluor® 647 (sc-374113 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374113 AF680) or Alexa Fluor® 790 (sc-374113 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

PINX1 (D-3) is recommended for detection of PINX1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for PINX1 siRNA (h): sc-62814, PINX1 siRNA (m): sc-62815, PINX1 shRNA Plasmid (h): sc-62814-SH, PINX1 shRNA Plasmid (m): sc-62815-SH, PINX1 shRNA (h) Lentiviral Particles: sc-62814-V and PINX1 shRNA (m) Lentiviral Particles: sc-62815-V.

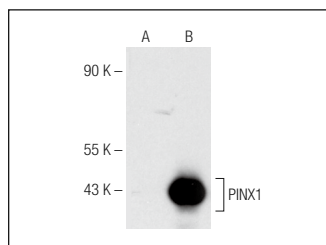
Molecular Weight of PINX1: 45 kDa.

Positive Controls: PINX1 (h): 293 Lysate: sc-113229, A-431 nuclear extract: sc-2122 or Jurkat nuclear extract: sc-2132.

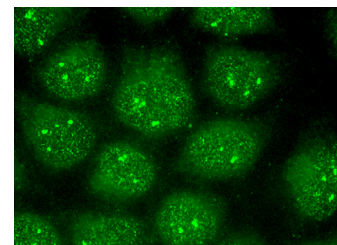
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PINX1 (D-3): sc-374113. Western blot analysis of PINX1 expression in non-transfected: sc-110760 (A) and human PINX1 transfected: sc-113229 (B) 293 whole cell lysates.



PINX1 (D-3): sc-374113. Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar and nuclear localization.

SELECT PRODUCT CITATIONS

- Li, S., et al. 2021. Regulation of PINX1 expression ameliorates lipopolysaccharide-induced lung injury and alleviates cell senescence during the convalescent phase through affecting the telomerase activity. Aging 13: 10175-10186.

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 for detailed protocols and support products.