SANTA CRUZ BIOTECHNOLOGY, INC.

PNO1 (G-7): sc-514727

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

PNO1 (partner of NOB1), also known as KHRBP1, is a 252 amino acid protein that localizes to the nucleolus and contains one KH domain. Expressed in a variety of tissues, including kidney, lung, liver and spleen, with lower levels present in brain, heart, colon and skeletal muscle, PNO1 may play a role in RNA binding events during transcription or translation. The gene encoding PNO1 maps to human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome. Harlequin icthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene, while the lipid metabolic disorder sitosterolemia is associated with defects in the ABCG5 and ABCG8 genes. Additionally, an extremely rare recessive genetic disorder, Alström syndrome, is caused by mutations in the ALMS1 gene, which maps to chromosome 2.

CHROMOSOMAL LOCATION

Genetic locus: PNO1 (human) mapping to 2p14; Pno1 (mouse) mapping to 11 A2.

SOURCE

PNO1 (G-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 170-192 within an internal region of PNO1 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514727 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

PNO1 (G-7) is recommended for detection of PNO1 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 PNO1 siRNA (h): sc-94365, PNO1 siRNA (m): sc-152359, PNO1 shRNA Plasmid (h): sc-94365-SH, PNO1 shRNA Plasmid (m): sc-152359-SH, PNO1 shRNA (h) Lentiviral Particles: sc-94365-V and PNO1 shRNA (m) Lentiviral Particles: sc-152359-V.

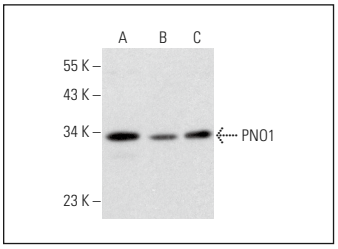
Molecular Weight of PNO1: 35 kDa.

Positive Controls: PNO1 (m): 293T Lysate: sc-125837, K-562 whole cell lysate: sc-2203 or U-251-MG whole cell lysate: sc-364176.

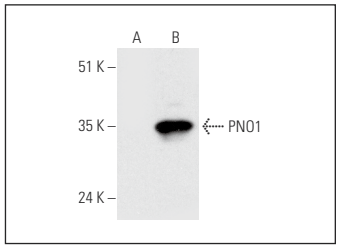
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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



PNO1 (G-7): sc-514727. Western blot analysis of PNO1 expression in K-562 (**A**), HeLa (**B**) and U-251-MG (**C**) whole cell lysates.



PNO1 (G-7): sc-514727. Western blot analysis of PNO1 expression in non-transfected: sc-117752 (**A**) and mouse PNO1 transfected: sc-125837 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Li, J., et al. 2022. Ribosome assembly factor PNO1 is associated with progression and promotes tumorigenesis in triple-negative breast cancer. Oncol. Rep. 47: 108.
2. Roy, S.K., et al. 2024. Clinical significance of PNO1 as a novel biomarker and therapeutic target of hepatocellular carcinoma. J. Cell. Mol. Med. 28: e18295.

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.