

# PIH1D2 (I-20): sc-248253

## BACKGROUND

PIH1D2 (PIH1 domain containing 2) is a 315 amino acid protein that belongs to the PIH1 family. Encoded by a gene that maps to human chromosome 11q23.1, PIH1D2 is one of five genes included in a novel germline SDHD deletion that is linked to an unusual sympathetic head and neck paraganglioma, a rare tumor arising either from sympathetic or parasympathetic-associated chromaffin tissue. With approximately 135 million base pairs and 1,400 genes, chromosome 11 makes up approximately 4% of human genomic DNA. Ataxia-telangiectasia, the blood disorders Sickle cell anemia and  $\beta$  thalassemia, Wilms' tumors, WAGR syndrome, Denys-Drash syndrome, Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are all associated with defects in chromosome 11.

## REFERENCES

1. Zehelein, J., et al. 2006. Skipping of Exon 1 in the KCNQ1 gene causes Jervell and Lange-Nielsen syndrome. *J. Biol. Chem.* 281: 35397-35403.
2. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. *Nature* 440: 497-500.
3. Ataga, K.I., et al. 2007.  $\beta$ -thalassaemia and sickle cell anaemia as paradigms of hypercoagulability. *Br. J. Haematol.* 139: 3-13.
4. Berger, A.C., et al. 2007. The subcellular localization of the Niemann-Pick Type C proteins depends on the adaptor complex AP-3. *J. Cell Sci.* 120: 3640-3652.
5. O'Connor, M.J., et al. 2007. Targeted cancer therapies based on the inhibition of DNA strand break repair. *Oncogene* 26: 7816-7824.

## CHROMOSOMAL LOCATION

Genetic locus: PIH1D2 (human) mapping to 11q23.1; Pih1d2 (mouse) mapping to 9 A5.3.

## SOURCE

PIH1D2 (I-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PIH1D2 of mouse 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-248253 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

PIH1D2 (I-20) is recommended for detection of PIH1D2 of mouse, rat and, to a lesser extent, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PIH1D2 siRNA (h): sc-96647, PIH1D2 siRNA (m): sc-152261, PIH1D2 shRNA Plasmid (h): sc-96647-SH, PIH1D2 shRNA Plasmid (m): sc-152261-SH PIH1D2, shRNA (h) Lentiviral Particles: sc-96647-V and PIH1D2 shRNA (m) Lentiviral Particles: sc-152261-V.

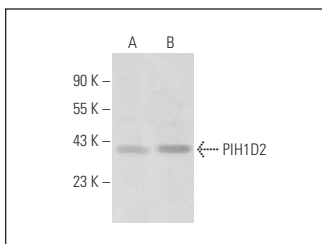
Molecular Weight of PIH1D2: 36 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214.

## 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.

## DATA



PIH1D2 (I-20): sc-248253. Western blot analysis of PIH1D2 expression in KNRK (A) and SW-13 (B) whole cell lysates.

## RESEARCH USE

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