SANTA CRUZ BIOTECHNOLOGY, INC.

PIH1D2 (T-16): sc-248250

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The Power to Question

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 5 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 β 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

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2. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. Nature 440: 497-500.
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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.
6. Kaste, S.C., et al. 2008. Wilms tumour: prognostic factors, staging, therapy and late effects. Pediatr. Radiol. 38: 2-17.
7. Cloutier, P. and Coulombe, B. 2010. New insights into the biogenesis of nuclear RNA polymerases? Biochem. Cell Biol. 88: 211-221.
8. Cadiñanos, J., et al. 2010. Novel germline SDHD deletion associated with an unusual sympathetic head and neck paraganglioma. Head Neck 33:1233-1240

CHROMOSOMAL LOCATION

Genetic locus: PIH1D2 (human) mapping to 11q23.1.

SOURCE

PIH1D2 (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PIH1D2 of human origin.

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 or our catalog for detailed protocols and support products.

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-248250 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PIH1D2 (T-16) is recommended for detection of PIH1D2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

PIH1D2 (T-16) is also recommended for detection of PIH1D2 in additional species, including equine and porcine.

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

Molecular Weight of PIH1D2: 36 kDa.

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) 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.

RESEARCH USE

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