SANTA CRUZ BIOTECHNOLOGY, INC.

NAP5 (S-15): sc-168711

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The Power to Question

BACKGROUND

NAP5 (Nck-associated protein 5), also known as peripheral clock protein, NCKAP5 or ERIH, is a 1,909 amino acid nuclear protein that is expressed in fetal and adult brain, leukocytes and fetal fibroblasts. Containing pro-rich sequences, NAP5 interacts with the adapter protein Nck via the SH3-containing region. Existing as four alternatively spliced isoforms, the gene encoding NAP5 maps to human chromosome 2q21.2 and mouse chromosome 1 E3. Human chromosome 2, the second largest human chromosome, consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. Harlequin icthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene present on chromosome 2. The lipid metabolic disorder sitosterolemia is associated with ABCG5 and ABCG8. An extremely rare recessive genetic disorder, Alström syndrome, is due to mutations in the ALMS1 gene.

REFERENCES

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2. Matuoka, K., et al. 1997. A novel ligand for an SH3 domain of the adaptor protein Nck bears an SH2 domain and nuclear signaling motifs. Biochem. Biophys. Res. Commun. 239: 488-492.
3. Patel, S.B., et al. 1998. Mapping a gene involved in regulating dietary cholesterol absorption. The sitosterolemia locus is found at chromosome 2p21. J. Clin. Invest. 102: 1041-1044.
4. Zumsteg, U., et al. 2000. Alstrom syndrome: confirmation of linkage to chromosome 2p12-13 and phenotypic heterogeneity in three affected sibs. J. Med. Genet. 37: E8.
5. Shulenin, S., et al. 2001. An ATP-binding cassette gene (ABCG5) from the ABCG (White) gene subfamily maps to human chromosome 2p21 in the region of the Sitosterolemia locus. Cytogenet. Cell Genet. 92: 204-208.
6. Hearn, T., et al. 2002. Mutation of ALMS1, a large gene with a tandem repeat encoding 47 amino acids, causes Alstrom syndrome. Nat. Genet. 31: 79-83.
7. Kelsell, D.P., et al. 2005. Mutations in ABCA12 underlie the severe congenital skin disease harlequin ichthyosis. Am. J. Hum. Genet. 76: 794-803.
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CHROMOSOMAL LOCATION

Genetic locus: NCKAP5 (human) mapping to 2q21.2; Nckap5 (mouse) mapping to 1 E3.

SOURCE

NAP5 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of NAP5 of human origin.

RESEARCH USE

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

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-168711 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NAP5 (S-15) is recommended for detection of NAP5 of mouse, rat and 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); non cross-reactive with other NAP family members.

NAP5 (S-15) is also recommended for detection of NAP5 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for NAP5 siRNA (h): sc-94675, NAP5 siRNA (m): sc-149827, NAP5 shRNA Plasmid (h): sc-94675-SH, NAP5 shRNA Plasmid (m): sc-149827-SH, NAP5 shRNA (h) Lentiviral Particles: sc-94675-V and NAP5 shRNA (m) Lentiviral Particles: sc-149827-V.

Molecular Weight of NAP5: 209 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.

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.