SANTA CRUZ BIOTECHNOLOGY, INC.

PRUNE2 (N-15): sc-241644

BACKGROUND

PRUNE2 (prune homolog 2 *(Drosophila)*, also known as BMCC1 (BNIP2 motif-containing molecule at the C-terminal region 1) or BNIPXL, is a 3,088 amino acid cytoplasmic protein that belongs to the PPase class C family and PRUNE subfamily. PRUNE2 is involved in the survival and aggressiveness of tumor cells and may also play a role in differentiation. Highly expressed in the nervous system and adrenal gland, PRUNE2 exists as five alternatively spliced isoforms and is induced during the G_1 phase of the cell cycle. PRUNE2 contains one CRAL-TRIO domain and is encoded by a gene that maps to human chromosome 9q21.13. Chromosome 9 houses over 900 genes and comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and familial dysautonomia, are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

REFERENCES

1. Zhuang, H., et al. 2006. Lupus-like disease and high interferon levels corresponding to trisomy of the type I interferon cluster on chromosome 9p. Arthritis Rheum. 54: 1573-1579.
2. Machida, T., et al. 2006. Increased expression of proapoptotic BMCC1, a novel gene with the BNIP2 and Cdc42GAP homology (BCH) domain, is associated with favorable prognosis in human neuroblastomas. Oncogene 25: 1931-1942.
3. Burmeister, T., et al. 2007. Atypical BCR-ABL mRNA transcripts in adult acute lymphoblastic leukemia. Haematologica 92: 1699-1702.
4. Cottin, V., et al. 2007. Pulmonary vascular manifestations of hereditary hemorrhagic telangiectasia (Rendu-Osler disease). Respiration 74: 361-378.
5. Zeitz, M.J., et al. 2009. Organization of the amplified type I interferon gene cluster and associated chromosome regions in the interphase nucleus of human osteosarcoma cells. Chromosome Res. 17: 305-319.
6. Gold-von Simson, G., et al. 2009. Kinetin in familial dysautonomia carriers: implications for a new therapeutic strategy targeting mRNA splicing. Pediatr. Res. 65: 341-346.
7. Axelrod, F.B., et al. 2010. Neuroimaging supports central pathology in familial dysautonomia. J. Neurol. 257: 198-206.
8. Salagierski, M., et al. 2010. Differential expression of PCA3 and its overlapping PRUNE2 transcript in prostate cancer. Prostate 70: 70-78.

CHROMOSOMAL LOCATION

Genetic locus: PRUNE2 (human) mapping to 9q21.2; Prune2 (mouse) mapping to 19 B.

SOURCE

PRUNE2 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of PRUNE2 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.

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-241644 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PRUNE2 (N-15) is recommended for detection of PRUNE2 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 h-prune.

Suitable for use as control antibody for PRUNE2 siRNA (h): sc-92645, PRUNE2 shRNA Plasmid (h): sc-92645-SH and PRUNE2 shRNA (h) Lentiviral Particles: sc-92645-V.

Molecular Weight of PRUNE2 isoforms: 341/337/40 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.