SANTA CRUZ BIOTECHNOLOGY, INC.

SFT2D2 (N-13): sc-162180

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

SFT2D2 (SFT2 domain-containing protein 2) is a 160 amino acid multi-pass membrane protein that belongs to the SFT2 family. SFT2D2 may be involved in fusion of retrograde transport vesicles derived from an endocytic compartment with the Golgi complex. The SFT2D2 gene is conserved in canine, bovine, mouse, rat, chicken, A.thaliana and rice, and maps to human chromosome 1q24.2. Chromosome 1 is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1. A breakpoint has been identified in 1q which disrupts the DISC1 gene and is linked to schizophrenia. Aberrations in chromosome 1 are found in a variety of cancers including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Clark, H.F., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. Genome Res. 13: 2265-2270.
2. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
3. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
4. Hennah, W., et al. 2006. Genes and schizophrenia: beyond schizophrenia: the role of DISC1 in major mental illness. Schizophr. Bull. 32: 409-416.
5. Ehret, G.B., et al. 2009. Follow-up of a major linkage peak on chromosome 1 reveals suggestive QTLs associated with essential hypertension: GenNet study. Eur. J. Hum. Genet. 17: 1650-1657.
6. Cheung, C.L., et al. 2009. Pre-B-cell leukemia homeobox 1 (PBX1) shows functional and possible genetic association with bone mineral density variation. Hum. Mol. Genet. 18: 679-687.

CHROMOSOMAL LOCATION

Genetic locus: SFT2D2 (human) mapping to 1q24.2; Sft2d2 (mouse) mapping to 1 H2.3.

SOURCE

SFT2D2 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of SFT2D2 of human origin.

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-162180 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

SFT2D2 (N-13) is recommended for detection of SFT2D2 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 SFT2D1 or SFT2D3.

Suitable for use as control antibody for SFT2D2 siRNA (h): sc-78982, SFT2D2 siRNA (m): sc-153408, SFT2D2 shRNA Plasmid (h): sc-78982-SH, SFT2D2 shRNA Plasmid (m): sc-153408-SH, SFT2D2 shRNA (h) Lentiviral Particles: sc-78982-V and SFT2D2 shRNA (m) Lentiviral Particles: sc-153408-V.

Molecular Weight of SFT2D2: 18 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.