SANTA CRUZ BIOTECHNOLOGY, INC.

SYNPO2L (F-12): sc-138658

BACKGROUND

SYNPO2L (Synaptopodin 2-like protein) is a 977 amino acid cytoplasmic protein that belongs to the Synaptopodin family, contains one PDZ (DHR) domain and exists as two alternatively spliced isoforms. As an actin-associated protein, SYNPO2L may play a role in modulating actin-based shape. The gene that encodes SYNPO2L contains 11,194 bases and maps to human chromosome 10q22.2. Housing over 800 genes and 135 million nucleotides, chromosome 10 makes up nearly 4.5% of the human genome. PTEN is an important tumor suppressor gene located on chromosome 10 and, when defective, causes a genetic predisposition to cancer development known as Cowden syndrome. The chromosome 10 encoded gene ERCC6 is important for DNA repair and is linked to Cockayne syndrome, which is characterized by extreme photosensitivity and premature aging. Tetrahydrobiopterin deficiency and a number of syndromes involving defective skull and facial bone fusion are also linked to chromosome 10. Additional defects in genes that map to chromosome 10 are associated with Charcot-Marie Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromatic deafness, Wolman's syndrome, multiple endocrine neoplasia type 2 and porphyria.

REFERENCES

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2. Jabs, E.W., et al. 1994. Jackson-Weiss and Crouzon syndromes are allelic with mutations in fibroblast growth factor receptor 2. Nat. Genet. 8: 275-279.
3. Berger, P., et al. 2002. Molecular cell biology of Charcot-Marie-Tooth disease. Neurogenetics 4: 1-15.
4. Teresi, R.E., et al. 2007. Cowden syndrome-affected patients with PTEN promoter mutations demonstrate abnormal protein translation. Am. J. Hum. Genet. 81: 756-767.
5. Cho, M.Y., et al. 2008. First report of ovarian dysgerminoma in Cowden syndrome with germline PTEN mutation and PTEN-related 10q loss of tumor heterozygosity. Am. J. Surg. Pathol. 32: 1258-1264.
6. Yin, Y., et al. 2008. PTEN: a new guardian of the genome. Oncogene 27: 5443-5453.
7. Laugel, V., et al. 2010. Mutation update for the CSB/ERCC6 and CSA/ERCC8 genes involved in Cockayne syndrome. Hum. Mutat. 31: 113-126.

CHROMOSOMAL LOCATION

Genetic locus: SYNPO2L (human) mapping to 10q22.2; Synpo2l (mouse) mapping to 14 A3.

SOURCE

SYNPO2L (F-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SYNPO2L 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-138658 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SYNPO2L (F-12) is recommended for detection of SYNPO2L isoforms 1 and 2 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).

Suitable for use as control antibody for SYNPO2L siRNA (h): sc-90671, SYNPO2L siRNA (m): sc-153989, SYNPO2L shRNA Plasmid (h): sc-90671-SH, SYNPO2L shRNA Plasmid (m): sc-153989-SH, SYNPO2L shRNA (h) Lentiviral Particles: sc-90671-V and SYNPO2L shRNA (m) Lentiviral Particles: sc-153989-V.

Molecular Weight of SYNPO2L isoforms: 102/79 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.