SANTA CRUZ BIOTECHNOLOGY, INC.

SZT2 (F-17): sc-247259

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

SZT2 (seizure threshold 2 homolog (mouse)), also known as SZT2A or SZT2B, is a 3,432 amino acid peroxisomal protein that plays a role in resistance to oxidative stress. Predominantly expressed in the parietal and frontal cortex, as well as in dorsal root ganglia of the brain, SZT2 is implicated in superoxide dismutase activity and the neuroprotection in peroxisomes. Existing as four alternatively spliced isoforms, SZT2 is thought to enhance epileptogenesis and is encoded by a gene that maps to human chromosome 1p34.2. Human chromosome 1 spans 260 million base pairs, contains over 3,000 genes, comprises nearly 8% of the human genome and houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome.

REFERENCES

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2. Tayebi, N., et al. 2001. Gaucher disease and parkinsonism: a phenotypic and genotypic characterization. Mol. Genet. Metab. 73: 313-321.
3. Plasilova, M., et al. 2004. Exclusion of an extracolonic disease modifier locus on chromosome 1p33-36 in a large Swiss familial adenomatous polyposis kindred. Eur. J. Hum. Genet. 12: 365-371.
4. Betarbet, R., et al. 2008. Fas-associated factor 1 and Parkinson's disease. Neurobiol. Dis. 31: 309-315.
5. Holliday, E.G., et al. 2009. Strong evidence for a novel schizophrenia risk locus on chromosome 1p31.1 in homogeneous pedigrees from Tamil Nadu, India. Am. J. Psychiatry 166: 206-215.
6. Balcárková, J., et al. 2009. Gain of chromosome arm 1q in patients in relapse and progression of multiple myeloma. Cancer Genet. Cytogenet. 192: 68-72.
7. Yokoi, T., et al. 2009. Analysis of the vitreous membrane in a case of type 1 Stickler syndrome. Graefes Arch. Clin. Exp. Ophthalmol. 247: 715-718.
8. Toutzaris, D., et al. 2010. A novel giant peroxisomal superoxide dismutase motif-containing protein. Free Radic. Biol. Med. 48: 811-820.

CHROMOSOMAL LOCATION

Genetic locus: SZT2 (human) mapping to 1p34.2; Szt2 (mouse) mapping to 4 D2.1.

SOURCE

SZT2 (F-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SZT2 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-247259 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SZT2 (F-17) is recommended for detection of SZT2 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).

SZT2 (F-17) is also recommended for detection of SZT2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SZT2 siRNA (h): sc-78949, Szt2 siRNA (m): sc-141638, SZT2 shRNA Plasmid (h): sc-78949-SH, Szt2 shRNA Plasmid (m): sc-141638-SH, SZT2 shRNA (h) Lentiviral Particles: sc-78949-V and Szt2 shRNA (m) Lentiviral Particles: sc-141638-V.

Molecular Weight of SZT2 isoforms: 378/113/372/20 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.