SANTA CRUZ BIOTECHNOLOGY, INC.

CASD1 (D-13): sc-242312

BACKGROUND

CASD1 (CAS1 domain containing 1) is a 797 amino acid multi-pass membrane protein that belongs to the CASD1 family. Sharing high homology with glycosyltransferases, CASD1 contains 15 putative transmembrane domains and is encoded by a gene that maps to human chromosome 7q21.3, a region associated with myoclonic dystonia. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

REFERENCES

1. Tsipouras, P., Myers, J.C., Ramirez, F. and Prockop, D.J. 1983. Restriction fragment length polymorphism associated with the pro α 2(I) gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. J. Clin. Invest. 72: 1262-1267.
2. Liang, H., Fairman, J., Claxton, D.F., Nowell, P.C., Green, E.D. and Nagarajan, L. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. Proc. Natl. Acad. Sci. USA 95: 3781-3785.
3. Iwasaki, S., Usami, S., Abe, S., Isoda, H., Watanabe, T. and Hoshino, T. 2001. Long-term audiological feature in Pendred syndrome caused by PDS mutation. Arch. Otolaryngol. Head Neck Surg. 127: 705-708.
4. Janbon, G., Himmelreich, U., Moyrand, F., Improvisi, L. and Dromer, F. 2001. Cas1p is a membrane protein necessary for the O-acetylation of the Cryptococcus neoformans capsular polysaccharide. Mol. Microbiol. 42: 453-467.
5. Zimprich, A., Grabowski, M., Asmus, F., Naumann, M., Bertram, M., Kern, P., Scheidtmann, K., Winkelmann, J., Müller-Myhsok, B., Riedel, L., Bauer, M., Müller, T., Castro, M., Meitinger, T., Strom, T.M. and Gasser, T. 2001. Mutations in the gene encoding ε-sarcoglycan cause myoclonus-dystonia syndrome. Nat. Genet. 29: 66-69.
6. Eckert, M.A., Galaburda, A.M., Mills, D.L., Bellugi, U., Korenberg, J.R. and Reiss, A.L. 2006. The neurobiology of Williams syndrome: cascading influences of visual system impairment? Cell. Mol. Life Sci. 63: 1867-1875.
7. Reiner, O., Sapoznik, S. and Sapir, T. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. Neuromolecular Med. 8: 547-565.
8. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611686. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: CASD1 (human) mapping to 7q21.3; Casd1 (mouse) mapping to 6 A1.

SOURCE

CASD1 (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CASD1 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-242312 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CASD1 (D-13) is recommended for detection of CASD1 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).

CASD1 (D-13) is also recommended for detection of CASD1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CASD1 siRNA (h): sc-89718, CASD1 siRNA (m): sc-142019, CASD1 shRNA Plasmid (h): sc-89718-SH, CASD1 shRNA Plasmid (m): sc-142019-SH, CASD1 shRNA (h) Lentiviral Particles: sc-89718-V and CASD1 shRNA (m) Lentiviral Particles: sc-142019-V.

Molecular Weight of CASD1: 92 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.

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.