SANTA CRUZ BIOTECHNOLOGY, INC.

SUSD2 (G-18): sc-86227



BACKGROUND

The sushi domain, which is comprised of approximately 60 amino acids and 4 cysteines, is present in a variety of proteins where it facilitates proteinprotein interactions throughout the cell. SUSD2 (sushi domain containing 2), also known as BK65A6.2 or FLJ22778, is a 822 amino acid single-pass type I membrane protein containing one AMOP domain, one SMB (somatomedin-B) domain, one sushi (CCP/SCR) domain and one VWFD domain. The gene encoding SUSD2 maps to human chromosome 22, which houses over 500 genes and is the second smallest human chromosome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, Neurofibromatosis type 2, autism and schizophrenia.

REFERENCES

- Dunham, I., Shimizu, N., Roe, B.A., Chissoe, S., Hunt, A.R., Collins, J.E., Bruskiewich, R., Beare, D.M., Clamp, M., Smink, L.J., Ainscough, R., Almeida, J.P., Babbage, A., Bagguley, C., Bailey, J., Barlow, K., et al. 1999. The DNA sequence of human chromosome 22. Nature 402: 489-495.
- 2. Wei Xq, M., Gracie, J.A., Leung, B.P., Gao Bm, H., Niedbala, W., Paterson, G.K., McInnes, I.B. and Liew, F.Y. 2001. The Sushi domain of soluble IL-15 receptor α is essential for binding IL-15 and inhibiting inflammatory and allogenic responses *in vitro* and *in vivo*. J. Immunol. 167: 277-282.
- Briegel, W. and Cohen, M. 2004. Chromosome 22q11 deletion syndrome and its relevance for child and adolescent psychiatry. An overview of etiology, physical symptoms, aspects of child development and psychiatric disorders. Z Kinder. Jugendpsychiatr. Psychother. 32: 107-115.
- 4. Gothelf, D., Schaer, M. and Eliez, S. 2008. Genes, brain development and psychiatric phenotypes in velo-cardio-facial syndrome. Dev. Disabil. Res. Rev. 14: 59-68.
- Sathyamoorthi, S., Morales, J., Bermudez, J., McBride, L., Luquette, M., McGoey, R., Oates, N., Hales, S., Biegel, J.A. and Lacassie, Y. 2009. Array analysis and molecular studies of INI1 in an infant with deletion 22q13 (Phelan-McDermid syndrome) and atypical teratoid/rhabdoid tumor. Am. J. Med. Genet. A 149A: 1067-1069.
- Vorstman, J.A., Chow, E.W., Ophoff, R.A., van Engeland, H., Beemer, F.A., Kahn, R.S., Sinke, R.J. and Bassett, A.S. 2009. Association of the PIK4CA schizophrenia-susceptibility gene in adults with the 22q11.2 deletion syndrome. Am. J. Med. Genet. B Neuropsychiatr. Genet. 150B: 430-433.
- 7. Evans, D.G. 2009. Neurofibromatosis 2 Bilateral acoustic neurofibromatosis, central neurofibromatosis, NF2, neurofibromatosis type II. Genet. Med. 11: 599-610.

CHROMOSOMAL LOCATION

Genetic locus: SUSD2 (human) mapping to 22q11.23; Susd2 (mouse) mapping to 10 C1.

SOURCE

SUSD2 (G-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of SUSD2 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86227 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SUSD2 (G-18) is recommended for detection of SUSD2 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 SUSD5.

SUSD2 (G-18) is also recommended for detection of SUSD2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SUSD2 siRNA (h): sc-76617, SUSD2 siRNA (m): sc-153937, SUSD2 shRNA Plasmid (h): sc-76617-SH, SUSD2 shRNA Plasmid (m): sc-153937-SH, SUSD2 shRNA (h) Lentiviral Particles: sc-76617-V and SUSD2 shRNA (m) Lentiviral Particles: sc-153937-V.

Molecular Weight of SUSD2: 90 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) Immunofluo-rescence: 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.