SANTA CRUZ BIOTECHNOLOGY, INC.

DSCAML1 (D-15): sc-167681



The Power to Question

BACKGROUND

DSCAML1 (down syndrome cell adhesion molecule-like protein 1), also known as DSCAM2, is a cell adhesion molecule that contains six Fibronectin type-III domains and ten Ig-like C2-type domains. DSCAML1 is involved in regulating isoneuronal self-avoidance, the tendency for sister arbors to avoid crossing each other and to spread out proportionately over an area. Isoneuronal selfavoidance is important for proper terminal branching (arborization). DSCAML1 also promotes heteroneuronal self-avoidance to maintain mosaic spacing between all amacrine cells. DSCAML1 is expressed in liver, skeletal muscle, brain, kidney, pancreas and heart and exists as two isoforms produced by alternative splicing events.

REFERENCES

- 1. Hirosawa, M., et al. 1999. Characterization of cDNA clones selected by the GeneMark analysis from size-fractionated cDNA libraries from human brain. DNA Res. 6: 329-336.
- Agarwala, K.L., et al. 2001. Cloning and functional characterization of DSCAML1, a novel DSCAM-like cell adhesion molecule that mediates homophilic intercellular adhesion. Biochem. Biophys. Res. Commun. 285: 760-772.
- Barlow, G.M., et al. 2002. Mammalian DSCAMs: roles in the development of the spinal cord, cortex, and cerebellum? Biochem. Biophys. Res. Commun. 293: 881-891.
- Nakayama, M., et al. 2002. Protein-protein interactions between large proteins: two-hybrid screening using a functionally classified library composed of long cDNAs. Genome Res. 12: 1773-1784.
- Uhl, G.R., et al. 2008. Molecular genetics of successful smoking cessation: convergent genome-wide association study results. Arch. Gen. Psychiatry 65: 683-693.
- Pollin, T.I., et al. 2008. A null mutation in human APOC3 confers a favorable plasma lipid profile and apparent cardioprotection. Science 322: 1702-1705.
- Fuerst, P.G., et al. 2009. DSCAM and DSCAML1 function in self-avoidance in multiple cell types in the developing mouse retina. Neuron 64: 484-497.

CHROMOSOMAL LOCATION

Genetic locus: DSCAML1 (human) mapping to 11q23.3; Dscaml1 (mouse) mapping to 9 A5.2.

SOURCE

DSCAML1 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of DSCAML1 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-167681 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DSCAML1 (D-15) is recommended for detection of DSCAML1 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 DSCAM.

DSCAML1 (D-15) is also recommended for detection of DSCAML1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for DSCAML1 siRNA (h): sc-96383, DSCAML1 siRNA (m): sc-143173, DSCAML1 shRNA Plasmid (h): sc-96383-SH, DSCAML1 shRNA Plasmid (m): sc-143173-SH, DSCAML1 shRNA (h) Lentiviral Particles: sc-96383-V and DSCAML1 shRNA (m) Lentiviral Particles: sc-143173-V.

Molecular Weight of DSCAML1 isoforms: 224/201 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.