SANTA CRUZ BIOTECHNOLOGY, INC.

C2orf49 (K-12): sc-137342

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The Power to Question

BACKGROUND

C2orf49 (chromosome 2 open reading frame 49), also known as asw, Ashwin, MGC5509 or FLJ45759, is a 232 amino acid member of the ashwin family and is encoded by a gene located on human chromosome 2q12.1. The second largest human chromosome, chromosome 2 consists of 237 million bases encoding over 1,400 genes and making up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2. Harlequin icthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene. The lipid metabolic disorder sitosterolemia is associated with ABCG5 and ABCG8. An extremely rare recessive genetic disorder, Alström syndrome is due to mutations in the ALMS1 gene. Interestingly, chromosome 2 contains what appears to be a vestigial second centromere and vestigial telomeres which gives credence to the hypothesis that human chromosome 2 is the result of an ancient fusion of two ancestral chromosomes seen in modern form today in apes.

REFERENCES

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4. Arinami, T. 2006. Analyses of the associations between the genes of 22q11 deletion syndrome and schizophrenia. J. Hum. Genet. 51: 1037-1045.
5. Paylor, R., et al. 2006. Tbx1 haploinsufficiency is linked to behavioral disorders in mice and humans: implications for 22q11 deletion syndrome. Proc. Natl. Acad. Sci. USA 103: 7729-7734.
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7. Ahronowitz, I., et al. 2007. Mutational spectrum of the NF2 gene: a meta-analysis of 12 years of research and diagnostic laboratory findings. Hum. Mutat. 28: 1-12.
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CHROMOSOMAL LOCATION

Genetic locus: C2orf49 (human) mapping to 2q12.1; AI597479 (mouse) mapping to 1 B.

SOURCE

C2orf49 (K-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of C2orf49 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 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137342 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

C2orf49 (K-12) is recommended for detection of C2orf49 of human origin, AI597479 of mouse origin and the corresponding rat homolog by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other C2orf family members.

C2orf49 (K-12) is also recommended for detection of C2orf49 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for C2orf49 siRNA (h): sc-94728, AI597479 siRNA (m): sc-140948, C2orf49 shRNA Plasmid (h): sc-94728-SH, AI597479 shRNA Plasmid (m): sc-140948-SH, C2orf49 shRNA (h) Lentiviral Particles: sc-94728-V and AI597479 shRNA (m) Lentiviral Particles: sc-140948-V.

Molecular Weight of C2orf49: 26 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.