MCCD1 (C-12): sc-243439



The Power to Question

BACKGROUND

MCCD1 (mitochondrial coiled-coil domain 1) is a 119 amino acid mitochondrial protein that is widely expressed, but found at highest levels in adult and fetal kidney, lung and liver. The gene encoding MCCD1 maps to the major histocompatibility (MHC) class III region of human chromosome 6p21.33. Making up nearly 6% of the human genome, chromosome 6 contains around 1,200 genes within 170 million base pairs of sequence. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, and porphyria cutanea tarda is associated with chromosome 6 through the HFE gene. Stickler syndrome, Parkinson's disease, 21-hydroxylase deficiency and maple syrup urine disease are also associated with genes on chromosome 6. A bipolar disorder susceptibility locus has been identified on the q arm of chromosome 6.

REFERENCES

- Brunner, H.G., van Beersum, S.E., Warman, M.L., Olsen, B.R., Ropers, H.H. and Mariman, E.C. 1994. A Stickler syndrome gene is linked to chromosome 6 near the COL11A2 gene. Hum. Mol. Genet. 3: 1561-1564.
- 2. Semple, J.I., Ribas, G., Hillyard, G., Brown, S.E., Sanderson, C.M. and Campbell, R.D. 2003. A novel gene encoding a coiled-coil mitochondrial protein located at the telomeric end of the human MHC Class III region. Gene 314: 41-54.
- Cesari, R., Martin, E.S., Calin, G.A., Pentimalli, F., Bichi, R., McAdams, H., Trapasso, F., Drusco, A., Shimizu, M., Masciullo, V., D'Andrilli, G., Alder, H., Godwin, A.K. and Croce, C.M. 2003. Parkin, a gene implicated in autosomal recessive juvenile parkinsonism, is a candidate tumor suppressor gene on chromosome 6q25-q27. Proc. Natl. Acad. Sci. USA 100: 5956-5961.
- 4. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609624. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 5. Bläker, H., Mechtersheimer, G., Sutter, C., Hertkorn, C., Kern, M.A., Rieker, R.J., Penzel, R., Schirmacher, P. and Kloor, M. 2008. Recurrent deletions at 6q in early age of onset non-HNPCC- and non-FAP-associated intestinal carcinomas. Evidence for a novel cancer susceptibility locus at 6q14-q22. Genes Chromosomes Cancer 47: 159-164.
- Fan, J., Ionita-Laza, I., McQueen, M.B., Devlin, B., Purcell, S., Faraone, S.V., Allen, M.H., Gyulai, L., Hauser, P., Patel, J.K., Sachs, G.S., Thase, M.E., Molay, F.B., Escamilla, M.A., Sklar, P., Laird, N.M. and Smoller, J.W. 2010. Linkage disequilibrium mapping of the chromosome 6q21-22.31 bipolar I disorder susceptibility locus. Am. J. Med. Genet. B Neuropsychiatr. Genet. 153B: 29-37.
- 7. Jalil, S., Grady, J.J., Lee, C. and Anderson, K.E. 2010. Associations among behavior-related susceptibility factors in porphyria cutanea tarda. Clin. Gastroenterol. Hepatol. 8: 297-302, 302.e1.

CHROMOSOMAL LOCATION

Genetic locus: MCCD1 (human) mapping to 6p21.33.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

SOURCE

MCCD1 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MCCD1 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-243439 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MCCD1 (C-12) is recommended for detection of MCCD1 of 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).

Suitable for use as control antibody for MCCD1 siRNA (h): sc-95328, MCCD1 shRNA Plasmid (h): sc-95328-SH and MCCD1 shRNA (h) Lentiviral Particles: sc-95328-V.

Molecular Weight of MCCD1: 13 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) 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**