SANTA CRUZ BIOTECHNOLOGY, INC.

CCDC32 (W-17): sc-246152

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The Power to Question

BACKGROUND

CCDC32 (coiled-coil domain containing 32) is a 185 amino acid protein that exists as 3 alternatively spliced isoforms. The gene encoding CCDC24 maps to human chromosome 15, which encodes more than 700 genes and makes up about 3% of the human genome. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes in the 15q11-q13 region. In the case of Angelman syndrome, this loss is due to inactivity of the maternal 15q11-q13 encoded UBE3A gene in the brain by either chromosomal deletion or mutation. In cases of Prader-Willi syndrome, there is a partial or complete deletion of this region from the paternal copy of chromosome 15. Tay-Sachs disease is a lethal disorder associated with mutations of the HEXA gene, which is encoded by chromosome 15. Marfan syndrome is associated with chromosome 15 through the FBN1 gene.

REFERENCES

1. Zody, M.C., et al. 2006. Analysis of the DNA sequence and duplication history of human chromosome 15. Nature 440: 671-675.
2. Cachón-González, M.B., et al. 2006. Effective gene therapy in an authentic model of Tay-Sachs-related diseases. Proc. Natl. Acad. Sci. USA 103: 10373-10378.
3. Makoff, A.J. and Flomen, R.H. 2007. Detailed analysis of 15q11-q14 sequence corrects errors and gaps in the public access sequence to fully reveal large segmental duplications at breakpoints for Prader-Willi, Angelman, and inv dup(15) syndromes. Genome Biol. 8: R114.
4. Maegawa, G.H., et al. 2007. Pyrimethamine as a potential pharmacological chaperone for late-onset forms of GM2 gangliosidosis. J. Biol. Chem. 282: 9150-9161.
5. Ramirez, F. and Dietz, H.C. 2007. Fibrillin-rich microfibrils: Structural determinants of morphogenetic and homeostatic events. J. Cell. Physiol. 213: 326-330.
6. ten Dijke, P. and Arthur, H.M. 2007. Extracellular control of TGFβ signalling in vascular development and disease. Nat. Rev. Mol. Cell Biol. 8: 857-869.
7. Sartori, S., et al. 2008. Angelman syndrome due to a novel splicing mutation of the UBE3A gene. J. Child Neurol. 23: 912-915.

CHROMOSOMAL LOCATION

Genetic locus: C15orf57 (human) mapping to 15q15.1; Ccdc32 (mouse) mapping to 2 E5.

SOURCE

CCDC32 (W-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CCDC32 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-246152 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CCDC32 (W-17) is recommended for detection of CCDC32 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 other CCDC family members.

CCDC32 (W-17) is also recommended for detection of CCDC32 in additional species, including canine, bovine and avian.

Suitable for use as control antibody for CCDC32 siRNA (h): sc-90099, CCDC32 siRNA (m): sc-142102, CCDC32 shRNA Plasmid (h): sc-90099-SH, CCDC32 shRNA Plasmid (m): sc-142102-SH, CCDC32 shRNA (h) Lentiviral Particles: sc-90099-V and CCDC32 shRNA (m) Lentiviral Particles: sc-142102-V.

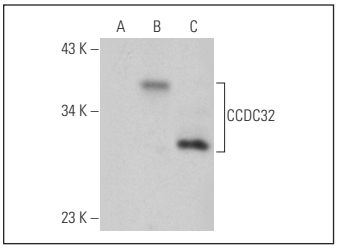
Molecular Weight of CCDC32 isoforms: 22/21/15 kDa.

Positive Controls: THP-1 cell lysate: sc-2238 or CCDC32 (h): 293T Lysate: sc-370791.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



CCDC32 (W-17): sc-246152. Western blot analysis of CCDC32 expression in non-transfected 293T: sc-117752 (**A**), human CCDC32 transfected 293T: sc-370791 (**B**) and THP-1 (**C**) whole cell lysates.

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.