SANTA CRUZ BIOTECHNOLOGY, INC.

CCDC7 (S-14): sc-160220

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The coiled-coil domain is a structural motif found in proteins that are involved in a diverse array of biological functions such as the regulation of gene expression, cell division, membrane fusion and drug extrusion and delivery. Some proteins that contain coil-coiled domains include c-Jun, c-Fos and tropomyosin. Coiled-coil domains consist of two or more α-helices packed together via interlacing side chains. CCDC7 (coiled-coil domain-containing protein 7) is a 486 amino acid protein that contains a coiled-coil domain and is encoded by a gene that maps to human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome. Defects in some genes that map to chromosome 10 are associated with Charcot-Marie Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromatic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria. There are two isoforms of CCDC7 that are produced as a result of alternative splicing events.

REFERENCES

1. Pauling, L., Corey, R.B. and Branson, H.R. 1951. The structure of proteins; two hydrogen-bonded helical configurations of the polypeptide chain. Proc. Natl. Acad. Sci. USA 37: 205-211.
2. Ota, T., Suzuki, Y., Nishikawa, T., Otsuki, T., Sugiyama, T., Irie, R., Wakamatsu, A., Hayashi, K., Sato, H., Nagai, K., Kimura, K., Makita, H., Sekine, M., Obayashi, M., Nishi, T., Shibahara, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. Nat. Genet. 36: 40-45.
3. Deloukas, P., Earthrowl, M.E., Grafham, D.V., Rubenfield, M., French, L., Steward, C.A., Sims, S.K., Jones, M.C., Searle, S., Scott, C., Howe, K., Hunt, S.E., Andrews, T.D., Gilbert, J.G., et al. 2004. The DNA sequence and comparative analysis of human chromosome 10. Nature 429: 375-381.
4. Woolfson, D.N. 2005. The design of coiled-coil structures and assemblies. Adv. Protein Chem. 70: 79-112.
5. Liu, J., Zheng, Q., Deng, Y., Cheng, C.S., Kallenbach, N.R. and Lu, M. 2006. A seven-helix coiled coil. Proc. Natl. Acad. Sci. USA 103: 15457-15462.
6. Moutevelis, E. and Woolfson, D.N. 2009. A periodic table of coiled-coil protein structures. J. Mol. Biol. 385: 726-732.
7. Wang, H., Zhang, P. and Wang, C.T. 2009. Analysis of expression pattern of a novel testis-highly expressed gene Biot2-L and the primary study on its role in testis development. Sichuan Da Xue Xue Bao Yi Xue Ban 40: 853-856.

CHROMOSOMAL LOCATION

Genetic locus: Ccdc7 (mouse) mapping to 8 E2.

SOURCE

CCDC7 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CCDC7 of mouse origin.

RESEARCH USE

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

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-160220 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

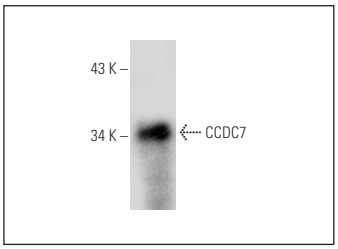
CCDC7 (S-14) is recommended for detection of CCDC7 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other CCDC family members.

Suitable for use as control antibody for CCDC7 siRNA (m): sc-142136, CCDC7 shRNA Plasmid (m): sc-142136-SH and CCDC7 shRNA (m) Lentiviral Particles: sc-142136-V.

Molecular Weight of CCDC7: 56 kDa.

Positive Controls: mouse testis extract: sc-2405.

DATA



CCDC7 (S-14): sc-160220. Western blot analysis of CCDC7 expression in mouse testis tissue extract.

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.