

CCDC7 (N-13): sc-160218

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, nonsyndromic 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

- 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.
- 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.
- 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.
- Woolfson, D.N. 2005. The design of coiled-coil structures and assemblies. *Adv. Protein Chem.* 70: 79-112.
- 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.
- Moutevelis, E. and Woolfson, D.N. 2009. A periodic table of coiled-coil protein structures. *J. Mol. Biol.* 385: 726-732.
- 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 (human) mapping to 10p11.22; Ccdc7 (mouse) mapping to 8 E2.

SOURCE

CCDC7 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CCDC7 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160218 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

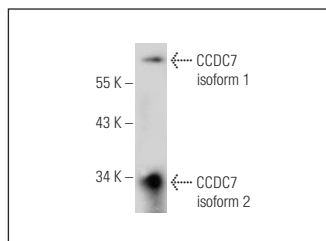
CCDC7 (N-13) is recommended for detection of CCDC7 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) 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 (h): sc-90513, CCDC7 siRNA (m): sc-142136, CCDC7 shRNA Plasmid (h): sc-90513-SH, CCDC7 shRNA Plasmid (m): sc-142136-SH, CCDC7 shRNA (h) Lentiviral Particles: sc-90513-V and CCDC7 shRNA (m) Lentiviral Particles: sc-142136-V.

Molecular Weight of CCDC7: 56 kDa.

Positive Controls: mouse testis extract: sc-2405.

DATA



CCDC7 (N-13): sc-160218. 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.

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.