

CCDC77 (E-19): sc-246190

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. CCDC77 (coiled-coil domain-containing protein 77) is a 488 amino acid protein that is encoded by a gene that maps to human chromosome 12p13.33. Encoding over 1,100 genes, chromosome 12 comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

REFERENCES

- Allen, T.L., Brothman, A.R., Carey, J.C. and Chance, P.F. 1996. Cytogenetic and molecular analysis in trisomy 12p. *Am. J. Med. Genet.* 63: 250-256.
- Gilbert, F. and Kauff, N. 2000. Disease genes and chromosomes: disease maps of the human genome. *Chromosome 12. Genet. Test.* 4: 319-333.
- Montgomery, K.T., Lee, E., Miller, A., Lau, S., Shim, C., Decker, J., Chiu, D., Emerling, S., Sekhon, M., Kim, R., Lenz, J., Han, J., Ioshikhes, I., Renault, B., Marondel, I., Yoon, S.J., Song, K., Murty, V.V., Scherer, S., Yonescu, R., Kirsch, I.R., Ried, T., McPherson, J., Gibbs, R. and Kucherlapati, R. 2001. A high-resolution map of human chromosome 12. *Nature* 409: 945-946.
- Mason, J.M. and Arndt, K.M. 2004. Coiled coil domains: stability, specificity, and biological implications. *Chembiochem.* 5: 170-176.
- 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., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. *Nat. Genet.* 36: 40-45.
- Riaz, N., Steinberg, S., Ahmad, J., Pluzhnikov, A., Riazuddin, S., Cox, N.J. and Drayna, D. 2005. Genomewide significant linkage to stuttering on chromosome 12. *Am. J. Hum. Genet.* 76: 647-651.
- Scherer, S.E., Muzny, D.M., Buhay, C.J., Chen, R., Cree, A., Ding, Y., Dugan-Rocha, S., Gill, R., Gunaratne, P., Harris, R.A., Hawes, A.C., Hernandez, J., Hodgson, A.V., et al. 2006. The finished DNA sequence of human chromosome 12. *Nature* 440: 346-351.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: CCDC77 (human) mapping to 12p13.33; Ccdc77 (mouse) mapping to 6 F1.

SOURCE

CCDC77 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CCDC77 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 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-246190 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CCDC77 (E-19) is recommended for detection of CCDC77 of mouse, rat and 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); non cross-reactive with other CCDC family members.

CCDC77 (E-19) is also recommended for detection of CCDC77 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CCDC77 siRNA (h): sc-96085, CCDC77 siRNA (m): sc-142143, CCDC77 shRNA Plasmid (h): sc-96085-SH, CCDC77 shRNA Plasmid (m): sc-142143-SH, CCDC77 shRNA (h) Lentiviral Particles: sc-96085-V and CCDC77 shRNA (m) Lentiviral Particles: sc-142143-V.

Molecular Weight of CCDC77: 57 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) or donkey anti-goat IgG-TR: sc-2783 (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.