

CCDC16 (O-25): sc-101914

BACKGROUND

CCDC16 (coiled-coil domain-containing protein 16), also known as ZNF830, OMCG1 (ovum mutant candidate gene 1) or SEL13, is a 372 amino acid protein that belongs to the C₂H₂-type zinc finger family of proteins. Localizing to the nucleus, CCDC16 contains one U1-type zinc finger motif and is involved in pre-mRNA splicing. CCDC16 functions as a component of a pre-mRNA splicing complex of the spliceosome (composed of AQR (aquarius), PRP19, CCDC16, HCNP, ISY1 and Cyclophilin E) and is required for proper RNA synthesis in the cell. Pre-mRNA splicing is essential to remove internal non-coding regions of pre-mRNA (introns) and to join the remaining segments (exons) into mRNA before translation. In preimplantation embryos, CCDC16 is believed to play an important role in cell cycle regulation. Further supporting its vital role in embryos, the disruption of CCDC16 leads to early embryonic lethality. Upon DNA damage, CCDC16 is phosphorylated by ATM or ATR.

REFERENCES

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3. Artus, J., Babinet, C. and Cohen-Tannoudji, M. 2006. The cell cycle of early mammalian embryos: lessons from genetic mouse models. *Cell Cycle* 5: 499-502.
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5. Kuraoka, I., Ito, S., Wada, T., Hayashida, M., Lee, L., Saijo, M., Nakatsu, Y., Matsumoto, M., Matsunaga, T., Handa, H., Qin, J., Nakatani, Y. and Tanaka, K. 2008. Isolation of XAB2 complex involved in pre-mRNA splicing, transcription, and transcription-coupled repair. *J. Biol. Chem.* 283: 940-950.

CHROMOSOMAL LOCATION

Genetic locus: ZNF830 (human) mapping to 17q12.

SOURCE

CCDC16 (O-25) is a purified rabbit polyclonal antibody raised against CCDC16 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.

PROTOCOLS

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

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

CCDC16 (O-25) is recommended for detection of CCDC16 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CCDC16 siRNA (h): sc-93985, CCDC16 shRNA Plasmid (h): sc-93985-SH and CCDC16 shRNA (h) Lentiviral Particles: sc-93985-V.

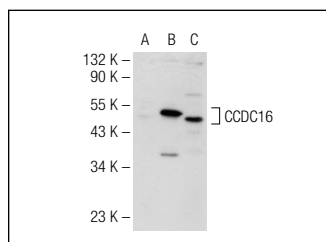
Molecular Weight of CCDC16: 42 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or CCDC16 (h2): 293T Lysate: sc-174469.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

DATA



CCDC16 (O-25): sc-101914. Western blot analysis of CCDC16 expression in non-transfected 293T: sc-117752 (A), human CCDC16 transfected 293T: sc-174469 (B) and Jurkat (C) whole cell lysates.

RESEARCH USE

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