

# CCDC33 (T-16): sc-162652

## 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. CCDC33 (coiled-coil domain containing 33), also known as CT61 (cancer/testis antigen 61), is a 958 amino acid protein found primarily in male germ cells. Existing as at least four alternatively spliced isoforms, CCDC33 is implicated in spermatogenesis and contains one C2 domain. CCDC33 is encoded by a gene located on human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome. Angelman syndrome, Prader-Willi syndrome, Tay-Sachs disease and Marfan syndrome are all associated with defects in chromosome 15-localized genes.

## REFERENCES

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- Woolfson, D.N. 2005. The design of coiled-coil structures and assemblies. *Adv. Protein Chem.* 70: 79-112.
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- Kaczmarek, K., et al. 2009. Ccdc33, a predominantly testis-expressed gene, encodes a putative peroxisomal protein. *Cytogenet. Genome Res.* 126: 243-252.
- Dan, B. 2009. Angelman syndrome: current understanding and research prospects. *Epilepsia* 50: 2331-2339.
- Ferrer-Bolufer, I., et al. 2009. Tyrosinemia type 1 and Angelman syndrome due to paternal uniparental isodisomy 15. *J. Inher. Metab. Dis.* 1: S345-S353.
- Moutevelis, E., et al. 2009. A periodic table of coiled-coil protein structures. *J. Mol. Biol.* 385: 726-732.

## CHROMOSOMAL LOCATION

Genetic locus: CCDC33 (human) mapping to 15q24.1; Ccdc33 (mouse) mapping to 9 B.

## SOURCE

CCDC33 (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CCDC33 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-162652 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

CCDC33 (T-16) is recommended for detection of CCDC33 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.

CCDC33 (T-16) is also recommended for detection of CCDC33 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for CCDC33 siRNA (h): sc-90062, CCDC33 siRNA (m): sc-142103, CCDC33 shRNA Plasmid (h): sc-90062-SH, CCDC33 shRNA Plasmid (m): sc-142103-SH, CCDC33 shRNA (h) Lentiviral Particles: sc-90062-V and CCDC33 shRNA (m) Lentiviral Particles: sc-142103-V.

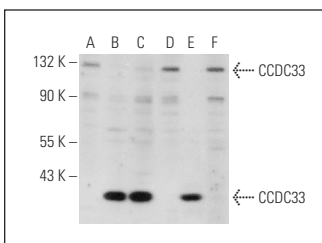
Molecular Weight of CCDC33: 114 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

## 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



CCDC33 (T-16): sc-162652. Western blot analysis of CCDC33 expression in Jurkat (A), K-562 (B), ZR-75-1 (C), HeLa (D), MCF7 (E) and MDA-MB-231 (F) 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.