

# CCDC76 (E-15): sc-161445

## BACKGROUND

CCDC76 (coiled-coil domain containing 76), also known as tRNA guanosine-2'-O-methyltransferase TRM13 homolog or tRNA [Gm4] methyltransferase, is a 481 amino acid protein belonging to the TRM13 family. Encoded by a gene that maps to human chromosome 1p21.2, CCDC76 specifically methylates guanosine-4 in various tRNAs with a Gly(CCG), His or Pro signature. CCDC76 contains one CHHC-type zinc finger and exists as two alternatively spliced isoforms. CCDC76 participates in metal ion binding and methyltransferase and transferase activities. Triggered by the suppression of hnRNP A2 in Colo16 cells, CCDC76 metabolic pathways and transcriptional responses are affected. CCDC76 is significantly regulated by 8Br-cAMP and may affect endocrine/paracrine/autocrine signals in the ovary. CCDC76 may also play a role in endometriosis.

## REFERENCES

- Mas, V.R., et al. 2007. Genes associated with progression and recurrence of hepatocellular carcinoma in hepatitis C patients waiting and undergoing liver transplantation: preliminary results. *Transplantation* 83: 973-981.
- He, Y., et al. 2009. Downstream targets of heterogeneous nuclear ribonucleoprotein A<sub>2</sub> mediate cell proliferation. *Mol. Carcinog.* 48: 167-179.
- Lee, S.C., et al. 2009. Chemotherapy-induced tumor gene expression changes in human breast cancers. *Pharmacogenet. Genomics* 19: 181-192.
- Lavoie, H.A., et al. 2010. GATA depletion impacts Insulin-like growth factor 1 mRNA and protein levels in luteinizing porcine granulosa cells. *Biol. Reprod.* 83: 1015-1026.
- Panagis, L., et al. 2010. Gene expression changes in areas of focal loss of retinal ganglion cells in the retina of DBA/2J mice. *Invest. Ophthalmol. Vis. Sci.* 51: 2024-2034.
- Borghese, B., et al. 2010. Research resource: genome-wide profiling of methylated promoters in endometriosis reveals a subtelomeric location of hypermethylation. *Mol. Endocrinol.* 24: 1872-1885.
- SWISS-PROT/TrEMBL (Q9NUP7). World Wide Web URL: <http://www.uniprot.org/uniprot/Q9NUP7>

## CHROMOSOMAL LOCATION

Genetic locus: CCDC76 (human) mapping to 1p21.2; Ccdc76 (mouse) mapping to 3 G1.

## SOURCE

CCDC76 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CCDC76 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-161445 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CCDC76 (E-15) is recommended for detection of CCDC76 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.

CCDC76 (E-15) is also recommended for detection of CCDC76 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for CCDC76 siRNA (h): sc-78673, CCDC76 siRNA (m): sc-142142, CCDC76 shRNA Plasmid (h): sc-78673-SH, CCDC76 shRNA Plasmid (m): sc-142142-SH, CCDC76 shRNA (h) Lentiviral Particles: sc-78673-V and CCDC76 shRNA (m) Lentiviral Particles: sc-142142-V.

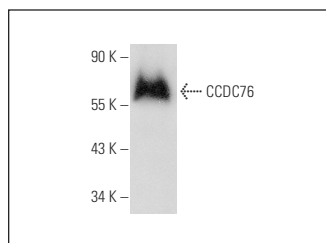
Molecular Weight of CCDC76: 54 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812.

## 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



CCDC76 (E-15): sc-161445. Western blot analysis of CCDC76 expression in SH-SY5Y whole cell lysate.

## 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.