

# CCDC46 (K-18): sc-246162

## 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. CCDC46 (coiled-coil domain containing 46) is a 955 amino acid protein that exists as 2 alternatively spliced isoforms. The gene encoding CCDC46 maps to human chromosome 17, which encoding over 1,200 genes and comprises over 2.5% of the human genome. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome.

## REFERENCES

1. Smith, M.L. and Fornace, A.J. 1996. Mammalian DNA damage-inducible genes associated with growth arrest and apoptosis. *Mutat. Res.* 340: 109-124.
2. Gilbert, F. 1998. Disease genes and chromosomes: disease maps of the human genome. *Chromosome 17. Genet. Test.* 2: 357-381.
3. Komarova, E.A. and Gudkov, A.V. 1998. Could p53 be a target for therapeutic suppression? *Semin. Cancer Biol.* 8: 389-400.
4. Ben-Porath, I. and Weinberg, R.A. 2005. The signals and pathways activating cellular senescence. *Int. J. Biochem. Cell Biol.* 37: 961-976.
5. Wang, J., Lin, J., Chang, Y., Li, P. and Yang, Y. 2010. MCM3AP, a novel HBV integration site in hepatocellular carcinoma and its implication in hepatocarcinogenesis. *J. Huazhong Univ. Sci. Technol. Med. Sci.* 30: 425-429.

## CHROMOSOMAL LOCATION

Genetic locus: CEP112 (human) mapping to 17q24.1; Ccdc46 (mouse) mapping to 11 E1.

## SOURCE

CCDC46 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CCDC46 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-246162 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

CCDC46 (K-18) is recommended for detection of CCDC46 of mouse 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.

CCDC46 (K-18) is also recommended for detection of CCDC46 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for CCDC46 siRNA (h): sc-93939, CCDC46 siRNA (m): sc-142115, CCDC46 shRNA Plasmid (h): sc-93939-SH, CCDC46 shRNA Plasmid (m): sc-142115-SH, CCDC46 shRNA (h) Lentiviral Particles: sc-93939-V and CCDC46 shRNA (m) Lentiviral Particles: sc-142115-V.

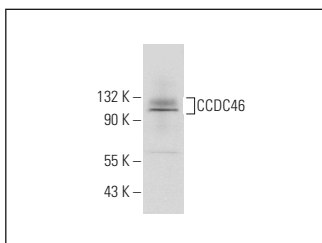
Molecular Weight of CCDC46 isoforms: 113/25 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## 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.

## DATA



CCDC46 (K-18): sc-246162. Western blot analysis of CCDC46 expression in Jurkat whole cell lysate.

## PROTOCOLS

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