

# CCDC44 (D-3): sc-398915

## BACKGROUND

CCDC44 (coiled-coil domain containing 44) is a 297 amino acid protein that is encoded by a gene which maps to human chromosome 17. Chromosome 17 comprises over 2.5% of the human genome and encodes over 1,200 genes. 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. Like p53, BRCA1 is directly involved in DNA repair, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

## REFERENCES

1. Nusbaum, R., et al. 2006-2007. Susceptibility to breast cancer: hereditary syndromes and low penetrance genes. *Breast Dis.* 27: 21-50.
2. Ropolo, A., et al. 2007. The pancreatitis-induced vacuole membrane protein 1 triggers autophagy in mammalian cells. *J. Biol. Chem.* 282: 37124-37133.
3. Tai, Y.C., et al. 2007. Breast cancer risk among male BRCA1 and BRCA2 mutation carriers. *J. Natl. Cancer Inst.* 99: 1811-1814.
4. Yan, J., et al. 2007. BLIMP1 regulates cell growth through repression of p53 transcription. *Proc. Natl. Acad. Sci. USA* 104: 1841-1846.

## CHROMOSOMAL LOCATION

Genetic locus: TAC01 (human) mapping to 17q23.3; Taco1 (mouse) mapping to 11 E1.

## SOURCE

CCDC44 (D-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 277-297 at the C-terminus of CCDC44 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CCDC44 (D-3) is available conjugated to agarose (sc-398915 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398915 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398915 PE), fluorescein (sc-398915 FITC), Alexa Fluor<sup>®</sup> 488 (sc-398915 AF488), Alexa Fluor<sup>®</sup> 546 (sc-398915 AF546), Alexa Fluor<sup>®</sup> 594 (sc-398915 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-398915 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-398915 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-398915 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398915 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

CCDC44 (D-3) is recommended for detection of CCDC44 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for CCDC44 siRNA (h): sc-93827, CCDC44 siRNA (m): sc-142113, CCDC44 shRNA Plasmid (h): sc-93827-SH, CCDC44 shRNA Plasmid (m): sc-142113-SH, CCDC44 shRNA (h) Lentiviral Particles: sc-93827-V and CCDC44 shRNA (m) Lentiviral Particles: sc-142113-V.

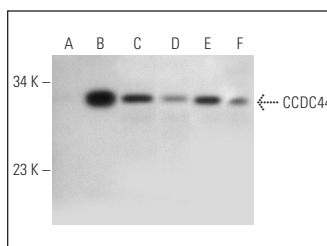
Molecular Weight of CCDC44: 32 kDa.

Positive Controls: CCDC44 (m): 293T Lysate: sc-125111, HeLa whole cell lysate: sc-2200 or RT-4 whole cell lysate: sc-364257.

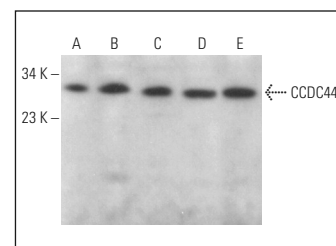
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



CCDC44 (D-3): sc-398915. Western blot analysis of CCDC44 expression in non-transfected 293T: sc-117752 (A), mouse CCDC44 transfected 293T: sc-125111 (B), HeLa (C), COLO 320DM (D), RT-4 (E) and U-251-MG (F) whole cell lysates.



CCDC44 (D-3): sc-398915. Western blot analysis of CCDC44 expression in HeLa (A), HL-60 (B), Caco-2 (C), NIH/3T3 (D) and C2C12 (E) 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.

## RESEARCH USE

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