SANTA CRUZ BIOTECHNOLOGY, INC.

CCDC98 (S-19): sc-104126

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The Power to Question

BACKGROUND

Coiled-coil domain-containing protein 98 (CCDC98), also known as FAM175A and ABRA1, is a 409 amino acid member of the FAM175 family. Functioning as a breast cancer-1 (BRCA1) interacting protein, CCDC98 co-localizes with BRCA1 to play a role in DNA repair. BRCA1 is a protein that is recruited to DNA breaks and participates in checkpoint regulations, specifically during S phase and at the G_2/M transition. CCDC98 acts upstream of BRCA1 and regulates BRCA1 in DNA repair and checkpoint regulations in a phosphorylation-dependent manner. Moreover, CCDC98 has been shown to be necessary for the formation of BRCA1 foci in response to ionizing radiation.

REFERENCES

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4. Wang, B., et al. 2007. Abraxas and RAP80 form a BRCA1 protein complex required for the DNA damage response. Science 316: 1194-1198.
5. Yan, J. and Jetten, A.M. 2008. RAP80 and RNF8, key players in the recruitment of repair proteins to DNA damage sites. Cancer Lett. 271: 179-190.
6. Rodriguez, M.C. and Songyang, Z. 2008. BRCT domains: phosphopeptide binding and signaling modules. Front. Biosci. 13: 5905-5915.
7. Kim, H. and Chen, J. 2008. New players in the BRCA1-mediated DNA damage responsive pathway. Mol. Cells 25: 457-461.
8. Osorio, A., et al. 2009. Evaluation of the BRCA1 interacting genes RAP80 and CCDC98 in familial breast cancer susceptibility. Breast Cancer Res. Treat. 113: 371-376.
9. Novak, D.J., et al. 2009. Analysis of the genes coding for the BRCA1-interacting proteins, RAP80 and Abraxas (CCDC98), in high-risk, non-BRCA1/2, multiethnic breast cancer cases. Breast Cancer Res. Treat. 117: 453-459.

CHROMOSOMAL LOCATION

Genetic locus: Fam175a (mouse) mapping to 5 E4.

SOURCE

CCDC98 (S-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CCDC98 of mouse 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-104126 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CCDC98 (S-19) is recommended for detection of CCDC98 of mouse and rat 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.

Suitable for use as control antibody for CCDC98 siRNA (m): sc-142163, CCDC98 shRNA Plasmid (m): sc-142163-SH and CCDC98 shRNA (m) Lentiviral Particles: sc-142163-V.

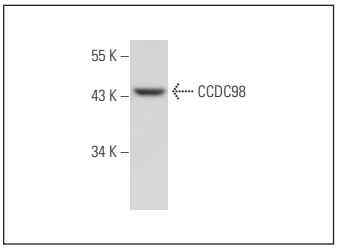
Molecular Weight of CCDC98: 47 kDa.

Positive Controls: mouse breast extract: sc-395043.

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



CCDC98 (S-19): sc-104126. Western blot analysis of CCDC98 expression in mouse breast tissue extract.

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.