

BRCAA1 (C-8): sc-515650

BACKGROUND

The breast cancer-associated antigen BRCAA1, also designated ARID domain-containing protein 4B (ARID4B), Sin3-associated polypeptide p180 (SAP180), or Retinoblastoma-binding protein 1-like 1 (RBBP1L1 or RBP1L1), shares 37% amino acid identity and an identical antigen epitope, SSKKQKRSHK, with Rb binding protein 1. High expression of BRCAA1 mRNA has been found in human breast, lung, colon, pancreatic and ovarian cancers, as well as in normal testis. This expression pattern indicates that BRCAA1 can be used as a molecular marker for a broad range of human malignancies. BRCAA1 also interacts with RBBP1/ARID4A and regulates genomic imprinting at the Prader-Willi syndrome (PWS)/Angelman syndrome (AS) domain.

REFERENCES

1. Cao, J., Gao, T., Stanbridge, E.J. and Irie, R. 2001. RBP1L1, a retinoblastoma-binding protein-related gene encoding an antigenic epitope abundantly expressed in human carcinomas and normal testis. *J. Natl. Cancer Inst.* 93: 1159-1165.
2. Fleischer, T.C., Yun, U.J. and Ayer, D.E. 2003. Identification and characterization of three new components of the mSin3A corepressor complex. *Mol. Cell. Biol.* 23: 3456-3467.
3. Cui, D., Jin, G., Gao, T., Sun, T., Tian, F., Estrada, G.G., Gao, H. and Sarai, A. 2004. Characterization of BRCAA1 and its novel antigen epitope identification. *Cancer Epidemiol. Biomarkers Prev.* 13: 1136-1145.
4. Wu, M.Y., Tsai, T.F. and Beaudet, A.L. 2006. Deficiency of Rbbp1/Arid4a and Rbbp111/Arid4b alters epigenetic modifications and suppresses an imprinting defect in the PWS/AS domain. *Genes Dev.* 20: 2859-2870.
5. Wu, M.Y., Eldin, K.W. and Beaudet, A.L. 2008. Identification of chromatin remodeling genes Arid4a and Arid4b as leukemia suppressor genes. *J. Natl. Cancer Inst.* 100: 1247-1259.

CHROMOSOMAL LOCATION

Genetic locus: ARID4B (human) mapping to 1q42.3; Arid4b (mouse) mapping to 13 A1.

SOURCE

BRCAA1 (C-8) is a mouse monoclonal antibody raised against amino acids 867-952 mapping within an internal region of BRCAA1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BRCAA1 (C-8) is available conjugated to agarose (sc-515650 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515650 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515650 PE), fluorescein (sc-515650 FITC), Alexa Fluor® 488 (sc-515650 AF488), Alexa Fluor® 546 (sc-515650 AF546), Alexa Fluor® 594 (sc-515650 AF594) or Alexa Fluor® 647 (sc-515650 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515650 AF680) or Alexa Fluor® 790 (sc-515650 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

BRCAA1 (C-8) is recommended for detection of BRCAA1 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 BRCAA1 siRNA (h): sc-72661, BRCAA1 siRNA (m): sc-72662, BRCAA1 shRNA Plasmid (h): sc-72661-SH, BRCAA1 shRNA Plasmid (m): sc-72662-SH, BRCAA1 shRNA (h) Lentiviral Particles: sc-72661-V and BRCAA1 shRNA (m) Lentiviral Particles: sc-72662-V.

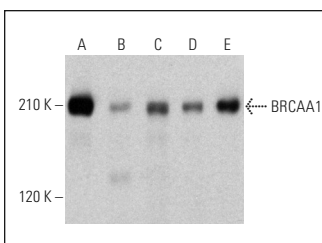
Molecular Weight of BRCAA1: 148/138/130/91 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, IMR-32 cell lysate: sc-2409 or Jurkat whole cell lysate: sc-2204.

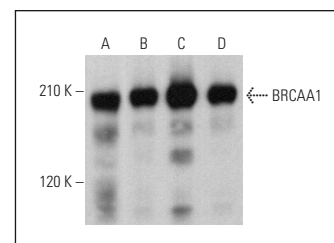
RECOMMENDED SUPPORT REAGENTS

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™ Molecular Weight Standards: sc-2035, UltraCruz® 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® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



BRCAA1 (C-8): sc-515650. Western blot analysis of BRCAA1 expression in Jurkat (A), A549 (B), SW480 (C), ES-2 (D) and HeLa (E) whole cell lysates.



BRCAA1 (C-8): sc-515650. Western blot analysis of BRCAA1 expression in SW480 (A), MDA-MB-231 (B), IMR-32 (C) and Neuro-2A (D) 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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA