

BRCA1 (H-300): sc-28234



The Power to Question

BACKGROUND

In 1990, a breast cancer susceptibility gene, designated BRCA1, was localized to chromosome 17q. Mutations within this gene are believed to account for approximately 45% of families with high incidence of breast cancer and at least 80% of families with increased incidence of both early-onset breast cancer and ovarian cancer. A second breast cancer susceptibility gene, BRCA2, located on chromosome 13q12-13, also confers a high incidence of breast cancer but, unlike BRCA1, does not confer a substantially elevated risk of ovarian cancer. The BRCA1 gene is expressed in numerous tissues, including breast and ovary, and encodes a predicted protein of 1,863 amino acids. This protein contains a zinc finger domain in its amino terminal region, but is otherwise unrelated to any previously described proteins. Like many other genes involved in familial cancer, BRCA1 appears to encode a tumor suppressor, a protein that acts as a negative regulator of tumor growth.

REFERENCES

- Hall, J.M., et al. 1990. Linkage of early-onset familial breast cancer to chromosome 17q21. *Science* 250: 1684-1689.
- Narod, S.A., et al. 1991. Familial breast-ovarian cancer locus on chromosome 17q12-q23. *Lancet* 338: 82-83.
- Nowak, R. 1994. Breast cancer gene offers surprises. *Science* 265: 1796-1799.

CHROMOSOMAL LOCATION

Genetic locus: BRCA1 (human) mapping to 17q21.31; Brca1 (mouse) mapping to 11 D.

SOURCE

BRCA1 (H-300) is a rabbit polyclonal antibody raised against amino acids 1564-1863 mapping at the C-terminus of BRCA1 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.

APPLICATIONS

BRCA1 (H-300) is recommended for detection of BRCA1 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), immunohistochemistry (including paraffin-embedded sections) (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 BRCA1 siRNA (h): sc-29219, BRCA1 siRNA (m): sc-29824, BRCA1 shRNA Plasmid (h): sc-29219-SH, BRCA1 shRNA Plasmid (m): sc-29824-SH, BRCA1 shRNA (h) Lentiviral Particles: sc-29219-V and BRCA1 shRNA (m) Lentiviral Particles: sc-29824-V.

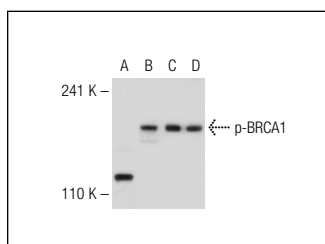
Molecular Weight of BRCA1: 220 kDa.

Positive Controls: HeLa + UV cell lysate: sc-2221.

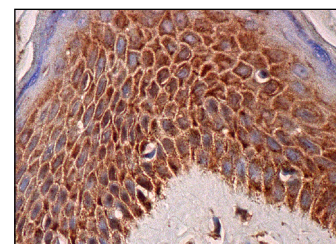
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Western blot analysis of BRCA1 phosphorylation in untreated (A, C) and UV irradiated (B, D) HeLa whole cell lysates. Antibodies tested include p-BRCA1 (G-4): sc-166793 (A, B) and BRCA1 (H-300): sc-28234 (C, D).



BRCA1 (H-300): sc-28234. Immunoperoxidase staining of formalin fixed, paraffin-embedded human vulva tissue showing cytoplasmic and nuclear staining of squamous epithelial cells.

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 or our catalog for detailed protocols and support products.



Try **BRCA1 (D-9): sc-6954** or **BRCA1 (G-4): sc-514640**, our highly recommended monoclonal alternatives to BRCA1 (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **BRCA1 (D-9): sc-6954**.