

p-BRCA1 (Ser 1524): sc-101648

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 1863 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

1. Narod, S.A., et al. 1991. Familial breast-ovarian cancer locus on chromosome 17q12-q23. *Lancet* 338: 82-83.
3. Miki, Y., et al. 1994. A strong candidate for the breast and ovarian cancer susceptibility gene BRCA1. *Science* 266: 66-71.
2. Futreal, P.A., et al. 1994. BRCA1 mutations in primary breast and ovarian carcinomas. *Science* 266: 120-122.
4. Choi, DH. et al. 2006. Double heterozygotes for non-Caucasian families with mutations in BRCA1 and BRCA2 genes. *Breast J.* 12: 216-220.
5. Elmariah, SB. et al. 2006. Multicentric glioblastoma multiforme in a patient with BRCA1 invasive breast cancer. *Breast J.* 12: 470-474.
6. Pal, A. et al. 2006. Synthesis and characterization of SERS gene probe for BRCA1 (breast cancer). *Faraday Discuss.* 132: 293-301.
7. Wiwanitkit, V. et al. 2006. Interaction between BRCA1 and human papilloma virus E7: an ontology study. *Arch. Gynecol. Obstet.* 274: 146-149.
8. Musolino, A. et al. 2007. BRCA mutations, molecular markers, and clinical variables in early-onset breast cancer: A population-based study. *Breast* 16: 280-292.
9. Kadouri, L. et al. 2007. A novel BRCA1 mutation in Arab kindred from east Jerusalem with breast and ovarian cancer. *BMC Cancer.* 7: 14.

CHROMOSOMAL LOCATION

Genetic locus: BRCA1 (human) mapping to 17q21.31.

SOURCE

p-BRCA1 (Ser 1524) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 1524 of BRCA1 of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p-BRCA1 (Ser 1524) is recommended for detection of Ser 1524 phosphorylated BRCA1 of human origin by immunofluorescence and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

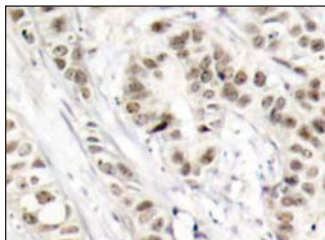
Suitable for use as control antibody for BRCA1 siRNA (h): sc-29219.

Molecular Weight of p-BRCA1: 220 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) 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. 2) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



p-BRCA1 (Ser 1524): sc-101648. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing cytoplasmic staining.

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.