

BRCA2 (N-19): sc-1819

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 (breast cancer 2, early onset), located on chromosome 13q13.1, also confers a high incidence of breast cancer but, unlike BRCA1, does not confer a substantially elevated risk of ovarian cancer. Both BRCA1 and BRCA2 play a role in the maintenance of genome stability, particularly in the homologous recombination pathway for double-strand DNA repair. BRCA2 is regarded as a tumor suppressor gene; tumors with BRCA2 mutations exhibit loss of heterozygosity (LOH) of the wildtype allele. The protein encoded by the BRCA2 gene contains multiple copies of a 70 amino acid motif called the BRC motif. These motifs effect binding to the Rad51 recombinase, which operates in DNA repair.

CHROMOSOMAL LOCATION

Genetic locus: BRCA2 (human) mapping to 13q13.1; Brca2 (mouse) mapping to 5 G3.

SOURCE

BRCA2 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of BRCA2 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.

Blocking peptide available for competition studies, sc-1819 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

BRCA2 (N-19) is recommended for detection of BRCA2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

BRCA2 (N-19) is also recommended for detection of BRCA2 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for BRCA2 siRNA (h): sc-29825, BRCA2 siRNA (m): sc-29826, BRCA2 shRNA Plasmid (h): sc-29825-SH, BRCA2 shRNA Plasmid (m): sc-29826-SH, BRCA2 shRNA (h) Lentiviral Particles: sc-29825-V and BRCA2 shRNA (m) Lentiviral Particles: sc-29826-V.

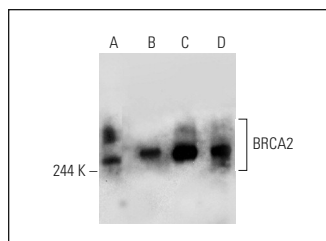
Molecular Weight of BRCA2: 390 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232, ZR-75-1 cell lysate: sc-2241 or U-2 OS cell lysate: sc-2295.

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



BRCA2 (N-19): sc-1819. Western blot analysis of BRCA2 expression in ZR-75-1 (A), 293T (B), MDA-MB-231 (C) and U-2 OS (D) whole cell lysates.

SELECT PRODUCT CITATIONS

- Bernard-Gallon, D.J., et al. 2002. Differential effects of n-3 and n-6 polyunsaturated fatty acids on BRCA1 and BRCA2 gene expression in breast cell lines. *Br. J. Nutr.* 87: 281-289.
- Maiya, R., et al. 2007. Defining the dopamine transporter proteome by convergent biochemical and in silico analyses. *Genes Brain Behav.* 6: 97-106.
- Lee, M.N., et al. 2007. Epigenetic inactivation of the chromosomal stability control genes BRCA1, BRCA2, and XRCC5 in non-small cell lung cancer. *Clin. Cancer Res.* 13: 832-838.

STORAGE

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

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **BRCA2 (3D12): sc-293185**, our highly recommended monoclonal alternative to BRCA2 (N-19).