BRCA1 (D-9): sc-6954

BACKGROUND
In 1990, a breast cancer susceptibility gene, designated BRCA1, was localized to chromosome 17q21.31. 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 13q13.1, 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.

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

SOURCE
BRCA1 (D-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1842-1862 at the C-terminus of BRCA1 of human origin.

PRODUCT
Each vial contains 200 µg IgG₂ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BRCA1 (D-9) is available conjugated to agarose (sc-6954 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-6954 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycocyanin (sc-6954 PE), fluorescein (sc-6954 FITC), Alexa Fluor® 488 (sc-6954 AF488), Alexa Fluor® 546 (sc-6954 AF546), Alexa Fluor® 594 (sc-6954 AF594) or Alexa Fluor® 647 (sc-6954 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-6954 AF680) or Alexa Fluor® 790 (sc-6954 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-6954 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS
BRCA1 (D-9) is recommended for detection of BRCA1 of 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).

Suitable for use as control antibody for BRCA1 siRNA (h): sc-29219, BRCA1 shRNA Plasmid (h): sc-29219-SH and BRCA1 shRNA (h) Lentiviral Particles: sc-29219-V.

Molecular Weight of BRCA1: 220 kDa.

Positive Controls: A-431 nuclear extract: sc-2122, HeLa nuclear extract: sc-2120 or MCF7 nuclear extract: sc-2149.

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

DATA
BRCA1 (D-9): sc-6954. Western blot analysis of BRCA1 expression in A-431 (A), HeLa (B) and MCF7 (C) nuclear extracts.

SELECT PRODUCT CitATIONS

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

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