10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Phospho-BRCA1 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10510

Specification

Phospho-BRCA1 Antibody - Product Information

Application	**WB**
Primary Accession	P38398
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**207721**

Phospho-BRCA1 Antibody - Additional Information

Gene ID 672

Application & Usage	**Western blotting (1-2 µg/ml). However, the optimal conditions should be determined individually. Other applications have not been tested yet. Detect human BRCA1 when phosphorylated at Ser1189.**

Other Names
BRCA1, BRCA pSer 1280, Breast Cancer Gene 1, Breast Cancer 1, Early Onset; Breast-Ovarian Cancer Susceptibility

Target/Specificity
Phospho-BRCA1

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.5 mg/ml) peptide affinity purified rabbit anti-phosphorylated BRCA1 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA, 0.02% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions

Phospho-BRCA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-BRCA1 Antibody - Protein Information

Name BRCA1

Synonyms RNF53

Function
E3 ubiquitin-protein ligase that specifically mediates the formation of 'Lys-6'-linked polyubiquitin chains and plays a central role in DNA repair by facilitating cellular responses to DNA damage (PubMed:12890688, PubMed:14976165, PubMed:16818604, PubMed:17525340, PubMed:12887909, PubMed:10500182, PubMed:19261748). It is unclear whether it also mediates the formation of other types of polyubiquitin chains (PubMed:12890688). The BRCA1-BARD1 heterodimer coordinates a diverse range of cellular pathways such as DNA damage repair, ubiquitination and transcriptional regulation to maintain genomic stability (PubMed:12890688, PubMed:14976165, PubMed:20351172). Regulates centrosomal microtubule nucleation (PubMed:18056443). Required for appropriate cell cycle arrests after ionizing irradiation in both the S-phase and the G2 phase of the cell cycle (PubMed:10724175, PubMed:12183412, PubMed:11836499, PubMed:19261748). Required for FANCD2 targeting to sites of DNA damage (PubMed:12887909). Inhibits lipid synthesis by binding to inactive phosphorylated ACACA and preventing its dephosphorylation (PubMed:16326698). Contributes to homologous recombination repair (HRR) via its direct interaction with PALB2, fine-tunes recombinational repair partly through its modulatory role in the PALB2-dependent loading of BRCA2-RAD51 repair machinery at DNA breaks (PubMed:19369211). Component of the BRCA1-RBBP8 complex which regulates CHEK1 activation and controls cell cycle G2/M checkpoints on DNA damage via BRCA1-mediated ubiquitination of RBBP8 (PubMed:16818604). Acts as a transcriptional activator (PubMed:20160719).

Cellular Location
Nucleus. Chromosome. Cytoplasm. Note=Localizes at sites of DNA damage at double-strand breaks (DSBs); recruitment to DNA damage sites is mediated by ABRAXAS1 and the BRCA1-A complex (PubMed:26778126) Translocated to the cytoplasm during UV-induced apoptosis (PubMed:20160719). [Isoform 5]: Cytoplasm

Tissue Location
Isoform 1 and isoform 3 are widely expressed. Isoform 3 is reduced or absent in several breast and

ovarian cancer cell lines

Phospho-BRCA1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-BRCA1 Antibody - Images

Phospho-BRCA1 Antibody - Background

BRCA1 is a breast cancer susceptibility gene that 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. The BRCA1 gene is expressed in numerous tissues, including breast and ovary, and encodes a predicted protein of 1863 amino acids. 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.