

BRCA1 Blocking Peptide
Catalog # PBV10152b**Specification**

BRCA1 Blocking Peptide - Product Information

Primary Accession	P38398
Gene ID	672
Calculated MW	207721

BRCA1 Blocking Peptide - Additional Information**Gene ID** 672**Application & Usage****The peptide is used for blocking the antibody activity of BRCA-1****Other Names**

Breast cancer type 1 susceptibility protein, 6.3.2.-, RING finger protein 53, BRCA1, RNF53

Target/Specificity

BRCA1

Formulation

50 µg (0.2 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

BRCA1 Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

BRCA1 Blocking Peptide - 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

BRCA1 Blocking Peptide - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

BRCA1 Blocking Peptide - Images