

BRCA2 Blocking Peptide
Catalog # PBV10307b**Specification**

BRCA2 Blocking Peptide - Product Information

Primary Accession	P51587
Other Accession	116508
Gene ID	675

BRCA2 Blocking Peptide - Additional Information**Gene ID** 675**Application & Usage**

The peptide is used for blocking the antibody activity of BRCA2. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30-60 minutes at 37°C.

Other Names

Breast cancer type 2 susceptibility protein, Fanconi anemia group D1 protein, BRCA2, FACD, FANCD1

Target/Specificity

BRCA2

Formulation

50 µg (0.5 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**

BRCA2 Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

BRCA2 Blocking Peptide - Protein Information**Name** BRCA2 ([HGNC:1101](#))**Synonyms** FACD, FANCD1**Function**

Involved in double-strand break repair and/or homologous recombination. Binds RAD51 and

potentiates recombinational DNA repair by promoting assembly of RAD51 onto single-stranded DNA (ssDNA). Acts by targeting RAD51 to ssDNA over double-stranded DNA, enabling RAD51 to displace replication protein-A (RPA) from ssDNA and stabilizing RAD51- ssDNA filaments by blocking ATP hydrolysis. Part of a PALB2-scaffolded HR complex containing RAD51C and which is thought to play a role in DNA repair by HR. May participate in S phase checkpoint activation. Binds selectively to ssDNA, and to ssDNA in tailed duplexes and replication fork structures. May play a role in the extension step after strand invasion at replication-dependent DNA double-strand breaks; together with PALB2 is involved in both POLH localization at collapsed replication forks and DNA polymerization activity. In concert with NPM1, regulates centrosome duplication. Interacts with the TREX-2 complex (transcription and export complex 2) subunits PCID2 and SEM1, and is required to prevent R-loop-associated DNA damage and thus transcription-associated genomic instability. Silencing of BRCA2 promotes R-loop accumulation at actively transcribed genes in replicating and non-replicating cells, suggesting that BRCA2 mediates the control of R-loop associated genomic instability, independently of its known role in homologous recombination (PubMed:24896180).

Cellular Location

Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Note=Colocalizes with ERCC5/XPG to nuclear foci following DNA replication stress

Tissue Location

Highest levels of expression in breast and thymus, with slightly lower levels in lung, ovary and spleen

BRCA2 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](#)

BRCA2 Blocking Peptide - Images