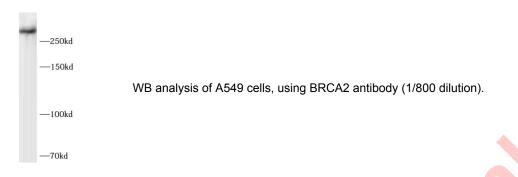
## **Datasheet**

Version: 3.0.0 Revision date: 05 Sep 2025



## **Breast Cancer Type 2 Susceptibility Protein (BRCA2) Antibody**

Catalogue No.:abx240132



Breast Cancer Type 2 Susceptibility Protein (BRCA2) Antibody is a Rabbit Polyclonal antibody for the detection of BRCA2.

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 SHFM1/DSS1, 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).

| Target:                | Breast Cancer Type 2 Susceptibility Protein (BRCA2)  |
|------------------------|--|
| Clonality:             | Polyclonal   |
| Reactivity:            | Human  |
| Tested Applications:   | ELISA, WB  |
| Host:                  | Rabbit   |
| Recommended dilutions: | WB: 1/200 - 1/1000. Optimal dilutions/concentrations should be determined by the end user. |
| Conjugation:           | Unconjugated   |
| Immunogen:             | breast cancer 2, early onset   |
| lsotype:               | IgG  |
| Form:                  | Liquid   |

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**Purity:**  $\geq 95\%$  (SDS-PAGE)

**Purification:** Purified by immunogen affinity chromatography.

**Storage:** Aliquot and store at -20°C. Avoid repeated freeze/thaw cycles.

Validity: 12 months.

UniProt Primary AC: P51587 (UniProt, ExPASy)

**KEGG:** hsa:675

String: <u>9606.ENSP00000369497</u>

Molecular Weight: Observed MW: 384 kDa

**Buffer:** PBS, pH 7.3, with 0.02% sodium azide and 50% glycerol.

Concentration: 2 mg/ml

Note: THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC,

THERAPEUTIC OR COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL

CONSUMPTION.

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