



# Rabbit Anti-Human BRCA2 (2082-2106) polyclonal Antibody (CABT-L6321)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

|                           |  |
|---------------------------|--|
| <b>Specificity</b>        | BRCA2 Antibody detects endogenous levels of total BRCA2.   |
| <b>Immunogen</b>          | A synthesized peptide derived from human BRCA2(Accession P51587), corresponding to amino acid residues E2082-L2106.  |
| <b>Isotype</b>            | IgG  |
| <b>Source/Host</b>        | Rabbit   |
| <b>Species Reactivity</b> | Human, Mouse, Rat  |
| <b>Purification</b>       | The antiserum was purified by peptide affinity chromatography using SulfoLink™ Coupling Resin (Thermo Fisher Scientific).  |
| <b>Conjugate</b>          | Unconjugated   |
| <b>Applications</b>       | WB, ICC/IF<br>WB 1:500-1:2000, IF/ICC 1:100-1:500<br>Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded. |
| <b>Format</b>             | Liquid   |
| <b>Concentration</b>      | Lot specific   |
| <b>Size</b>               | 50 µL, 100 µL, 200 µL  |
| <b>Buffer</b>             | PBS, pH 7.4, 150mM NaCl, 0.02% Sodium Azide and 50% glycerol.  |
| <b>Preservative</b>       | 0.02% Sodium Azide   |

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| <b>Storage</b> | Store at -20 °C. Stable for 12 months from date of receipt. |
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| <b>Ship</b> | Wet ice |
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## BACKGROUND

### Introduction

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.

## GENE INFORMATION

|                       |                     |
|-----------------------|---------------------|
| <b>Entrez Gene ID</b> | <a href="#">675</a> |
|-----------------------|---------------------|

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|-------------------|------------------------|
| <b>UniProt ID</b> | <a href="#">P51587</a> |
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