

BRCA2 [clone 1847CT631.23.58] (F54104)

Catalog No.	Formulation	Size
F54104-0.2ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.2 ml
F54104-0.05ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.05 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	1847CT631.23.58
Purity	Protein G purified
UniProt	P51587
Applications	Western Blot : 1:2000
Limitations	This BRCA2 antibody is available for research use only.

Western blot testing of BRCA2 at 1:2000 + partial recombinant protein. Predicted molecular weight of full protein: ~384 kDa.



Description

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 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](#)). [UniProt]

Application Notes

The stated application concentrations are suggested starting points. Titration of the BRCA2 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Recombinant human BRCA2 was used as the immunogen for the BRCA2 antibody.

Storage

Aliquot the BRCA2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.