

**BRCA1**  
**Rabbit Monoclonal antibody(Mab)**  
**Catalog # AD80591****Specification**

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**BRCA1 - Product info**

Application	IHC-P
Primary Accession	<a href="#">P38398</a>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal
Calculated MW	207721

**BRCA1 - Additional info**Gene ID **672****Other Names**

Breast cancer type 1 susceptibility protein, 2.3.2.27, RING finger protein 53, RING-type E3 ubiquitin transferase BRCA1, BRCA1, RNF53

**Dilution**

IHC-P~~N/A

**Storage**

Maintain refrigerated at 2-8°C

**BRCA1 - Protein Information****Name** BRCA1**Synonyms****Function****RNF53**

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:[10500182](#), PubMed:[12887909](#), PubMed:[12890688](#), PubMed:[14976165](#), PubMed:[16818604](#), PubMed:[17525340](#), 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](#),

	<p>PubMed:<a href="#">14976165</a>, PubMed:<a href="#">20351172</a>). Regulates centrosomal microtubule nucleation (PubMed:<a href="#">18056443</a>). Required for appropriate cell cycle arrests after ionizing irradiation in both the S-phase and the G2 phase of the cell cycle (PubMed:<a href="#">10724175</a>, PubMed:<a href="#">11836499</a>, PubMed:<a href="#">12183412</a>, PubMed:<a href="#">19261748</a>). Required for FANCD2 targeting to sites of DNA damage (PubMed:<a href="#">12887909</a>). Inhibits lipid synthesis by binding to inactive phosphorylated ACACA and preventing its dephosphorylation (PubMed:<a href="#">16326698</a>). 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:<a href="#">19369211</a>). 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:<a href="#">16818604</a>). Acts as a transcriptional activator (PubMed:<a href="#">20160719</a>). 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</p> <p>Isoform 1 and isoform 3 are widely expressed. Isoform 3 is reduced or absent in several breast and ovarian cancer cell lines</p>
Cellular Location	
Tissue Location	

## BRCA1 - 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 - Images