



# **BRCA1**

Rabbit Monoclonal antibody(Mab)
Catalog # AD80591

# **Specification**

## **BRCA1** - Product info

Application IHC-P
Primary Accession P38398
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

Storage This product is stored at 2-341 °C, please

use it within the expiration date.

# **BRCA1 - Protein Information**

# Name BRCA1

Synonyms RNF53

Function

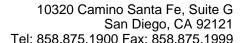
E3 ubiquitin-protein ligase that specifically mediates the formation of 'Lys-6'-linked polyubiquitin chains and plays a central role in DNA repair by facilitating cellular responses to DNA

damage (PubMed: 12890688,

PubMed: 14976165, PubMed: 16818604, PubMed: 17525340, PubMed: 12887909, PubMed: 10500182, 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, PubMed:14976165, PubMed:20351172). Regulates centrosomal microtubule nucleation (PubMed:18056443). Required for appropriate cell cycle arrests after





Cellular Location

Tissue Location

**BRCA1 - Protocols** 

Provided below are standard protocols that you may find useful for product applications.

lines

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

**BRCA1** - Images

ionizing irradiation in both the S-phase and the G2 phase of the cell cycle (PubMed: 10724175, PubMed: 12183412, PubMed: 11836499, PubMed: 19261748). Required for FANCD2 targeting to sites of DNA damage (PubMed: 12887909). Inhibits lipid synthesis by binding to inactive phosphorylated ACACA and preventing its dephosphorylation (PubMed: 16326698). 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: 19369211). 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: 16818604). Acts as a transcriptional activator (PubMed:20160719). 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 Isoform 1 and isoform 3 are widely

expressed. Isoform 3 is reduced or absent in several breast and ovarian cancer cell