



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

Dilution IHC-P~~N/A

Storage

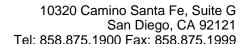
Maintain refrigerated at 2-8°C

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,





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
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

BRCA1 - Images

PubMed: 14976165, PubMed: 20351172). Regulates centrosomal microtubule nucleation (PubMed:18056443). Required for appropriate cell cycle arrests after ionizing irradiation in both the S-phase and the G2 phase of the cell cycle (PubMed: 10724175, PubMed: 11836499, PubMed: 12183412, 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 lines