

Anti-phospho-BRCA1 (Ser1423)

Rabbit Polyclonal Antibody

Catalog # B87-365R

Lot # J1178-3

Cited Applications

IHC

Suggested Dilutions:

IHC: 1:50-1:100

Ideal working dilutions for each application should be empirically determined by the investigator.

Specificity

Recognizes the BRCA1 protein phosphorylated at serine 1423

Cross Reactivity

Human, Mouse and Rat

Host/Isotype/Clone#

Rabbit, IgG

Immunogen

Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser1423

Formulation

PBS (pH 7.4) 150mM NaCl, 0.02% sodium azide and 50% glycerol.

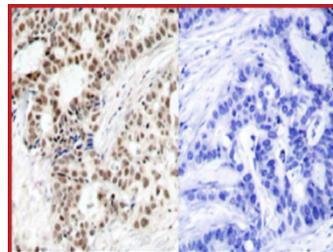
Scientific Background

The breast cancer susceptibility protein BRCA1 is responsible for repairing DNA damage, controlling the cell cycle, transcriptional regulation, ubiquitination and maintaining genomic stability. BRCA1 interacts with several protein complexes through interactions with different adaptor molecules. For example, BRCA1 is a component of the RNA polymerase II holoenzyme (PolII) (1). Because of its role in maintaining DNA fidelity, mutations that affect the subcellular localization of BRCA1 can lead to cancer predisposition (2). BRCA1 is most commonly associated with breast cancer, but it is also implicated other cancers such as ovarian cancer. BRCA1 is phosphorylated at Ser988 after DNA damage and phosphorylated at Ser1423/1524 in response to radiation exposure (3,4).

References

1. Scully, R. et al: BRCA1 is a component of the RNA polymerase II holoenzyme. Proc Natl Acad Sci U S A. 1997 May 27;94(11):5605-10.
2. Chen, Y. et al: Aberrant subcellular localization of BRCA1 in breast cancer. Science 1995 Nov 3;270(5237):789-91.
3. Lee J.S. et al: hCds1-mediated phosphorylation of BRCA1 regulates the DNA damage response. Nature. 2000 Mar 9;404(6774):201-4.
4. Cortez D. et al: Requirement of ATM-dependent phosphorylation of brca1 in the DNA damage response to double-strand breaks. Science. 1999 Nov 5;286(5442):1162-6.

Sample Data



P-Peptide

Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using anti-phospho-BRCA1 (Ser1423) antibody.

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Purification

Affinity chromatography

Stability

1yr at -20°C from date of shipment

Storage & Shipping

Store product at -20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

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