

AP02496PU-S**Polyclonal Antibody to BRCA1 / RNF53 pSer1423 - Aff - Purified****Alternate names:**

Breast cancer type 1 susceptibility protein, RING finger protein 53

Quantity:

50 µg

Concentration:

1.0 mg/ml

Background:

BRCA1 (breast and ovarian cancer susceptibility protein 1) is a nuclear phosphoprotein that plays a role in maintaining genomic stability and acts as a tumor suppressor. It combines with other tumor suppressors, DNA damage sensors, and signal transducers to form a large multi-subunit protein complex known as BASC (for BRCA1 associated genome surveillance complex). BRCA1 associates with RNA polymerase II, and through the C terminal domain, also interacts with histone deacetylase complex. This protein thus plays a role in transcription, DNA repair of double-stranded breaks, and recombination. Mutations in the BRCA1 gene are responsible for approximately 40% of inherited breast cancers and more than 80% of inherited breast and ovarian cancers. Alternative splicing plays a role in modulating the subcellular localization and physiological function of this gene. Many alternatively spliced transcript variants have been described for this gene but only some have had their full length natures identified.

Uniprot ID:[P38398](#)**NCBI:**[NP_009225.1](#)**GenID:**[672](#)**Host:**

Rabbit

Immunogen:

The antiserum was produced against synthesized phosphopeptide derived from human BRCA1 around the phosphorylation site of serine 1423 (H-G-SP-Q-P).

Format:**State:** Liquid purified IgG

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.

Buffer System: PBS(without Mg²⁺ and Ca²⁺), pH 7.4 containing 150mM NaCl, 0.02% sodium azide and 50% glycerol

Applications:

Western Blot: 1:500~1:1000.

Immunohistochemistry: 1:50~1:100.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

BRCA1 antibody detects endogenous levels of BRCA1 only when phosphorylated at serine 1423.

Species: Human.

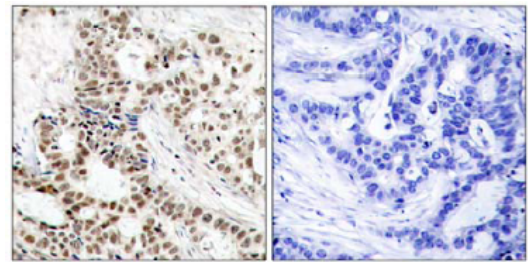
Other species not tested.

Storage: Store the antibody at -20°C.
 Avoid repeated freezing and thawing.
 Shelf life: one year from despatch.

General Readings:

1. Kim ST, et al. (2002) *Genes Dev*; 16(5): 560-570
2. Arlt MF, et al. (2004) *Mol Cell Biol*; 24(15): 6701-6709
3. Zhang J, et al. (2004) *Mol Cell Biol*; 24(2): 708-718
4. Greenberg RA, et al. (2006) *Genes Dev*; 20(1): 34-46
5. Tibbetts RS, et al. (2000) *Genes Dev*; 14(23): 2989-3002

Pictures: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue, using BRCA1 antibody (AP02496PU-S; AP02496PU-N).



P-Peptide - +

Western blot analysis of extracts from K562 cells treated with UV (20min), using BRCA1 antibody (AP02496PU-S; AP02496PU-N).

