

AP55805PU-S**Polyclonal Antibody to BRCA1 / RNF53 pSer1457 - Aff - Purified****Alternate names:**

Breast cancer type 1 susceptibility protein, RING finger protein 53

Quantity:

50 µg

Concentration:

1.0 mg/ml

Background:

The BRCA1-BARD1 heterodimer coordinates a diverse range of cellular pathways such as DNA damage repair, ubiquitination and transcriptional regulation to maintain genomic stability. Acts by mediating ubiquitin E3 ligase activity that is required for its tumor suppressor function. Plays a central role in DNA repair by facilitating cellular response to DNA repair. Required for appropriate cell cycle arrests after ionizing irradiation in both the S-phase and the G2 phase of the cell cycle. Involved in transcriptional regulation of P21 in response to DNA damage. Required for FANCD2 targeting to sites of DNA damage. May function as a transcriptional regulator. Inhibits lipid synthesis by binding to inactive phosphorylated ACACA and preventing its dephosphorylation

Uniprot ID:[P38398](#)**NCBI:**[9606](#)**GenElD:**[672](#)**Host:**

Rabbit

Immunogen:

Peptide sequence around phosphorylation site of Serine 1457 (L-T-S(p)-Q-K) derived from Human BRCA1 (KLH-conjugated)

Format:**State:** Liquid Ig fraction**Purification:** Affinity chromatography using epitope-specific peptide**Buffer System:** Rabbit IgG in phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol**Applications:****Western blot:** 1:500~1:1000.

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

Molecular Weight:

220 kDa

Specificity:

The antibody detects endogenous levels of BRCA1 only when phosphorylated at serine 1457.

Species Reactivity:**Tested:** Human**Storage:**

Upon receipt, store undiluted (in aliquots) at -20°C.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General Readings:

1. Miki Y, Swensen J, Shattuck-Eidens D, Futreal PA, Harshman K, Tavtigian S, et al. A strong candidate for the breast and ovarian cancer susceptibility gene BRCA1. *Science*. 1994 Oct 7;266(5182):66-71. PubMed PMID: 7545954.

2. Smith TM, Lee MK, Szabo CI, Jerome N, McEuen M, Taylor M, et al. Complete genomic sequence and analysis of 117 kb of human DNA containing the gene BRCA1.

Genome Res. 1996 Nov;6(11):1029-49. PubMed PMID: 8938427.

3. Wilson CA, Payton MN, Elliott GS, Buas FW, Cajulis EE, Grosshans D, et al. Differential subcellular localization, expression and biological toxicity of BRCA1 and the splice variant BRCA1-delta11b. Oncogene. 1997 Jan 9;14(1):1-16. PubMed PMID: 9010228.

Pictures:

Western blot analysis of extracts from 293 cells (Lane 2), using BRCA1 (Phospho-Ser1457) Antibody AP55805PU-N. The lane on the left is treated with antigen-specific peptide.

