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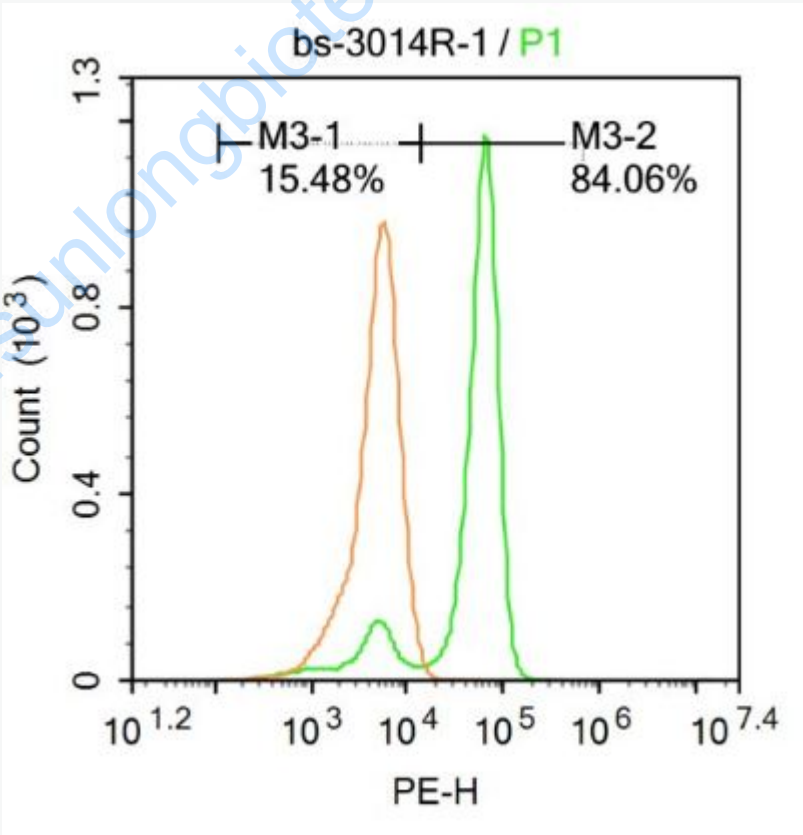
Rabbit Anti-Phospho-BRCA1 (Ser1524) antibody

SL3014R

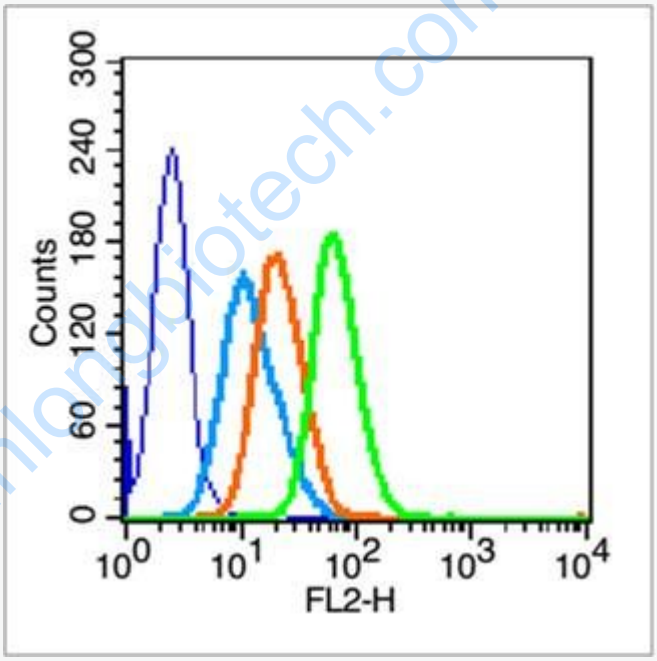
Product Name:	Phospho-BRCA1 (Ser1524)
Chinese Name:	磷酸化乳腺癌易感基因1抗体
Alias:	BRCA1(Phospho-Ser1524); BRCA1 (phospho S1524); p-BRCA1 (phospho S1524); BRCA 1; BRCA1; BRCA1/BRCA2 containing complex subunit 1; BRCA1/BRCA2-containing complex, subunit 1; BRCA1_HUMAN; BRCAI; BRAC 1; BRCA 1; BRCC 1; BRCC1; Breast Cancer 1; Breast Cancer 1 Early Onset; Breast cancer type 1 susceptibility protein; Breast and ovarian cancer susceptibility protein 1; Breast Ovarian Cancer Susceptibility; IRIS; Papillary Serous Carcinoma Of The Peritoneum; PSCP; RING finger protein 53; BROVCA1; IRIS; PNCA4; PPP1R53; Protein phosphatase 1 regulatory subunit 53; RNF53; BAP1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,
Applications:	WB=1:500-2000ELISA=1:500-1000Flow-Cyt=1ug/test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	205kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human BRCA1 around the phosphorylation site of Ser1524:YP(p-S)QE
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

PubMed:	PubMed
Product Detail:	This gene encodes a nuclear phosphoprotein that plays a role in maintaining genomic stability and acts as a tumor suppressor. The encoded protein 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. This gene product 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 this 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. Transcript Variant: This variant (BRCA1a') uses different splice site in the 5' UTR when compared to variant BRCA1a. It encodes the full-length BRCA1 protein (isoform 1) which is also known as p220. Variants BRCA1a and BRCA1b also encode the full-length BRCA1 protein. Publication Note: This RefSeq record includes a subset of the publications that are available for this gene. Please see the Entrez Gene record to access additional publications. **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. It is unclear whether it also mediates the formation of other types of polyubiquitin chains. The E3 ubiquitin-protein ligase activity is required for its tumor suppressor function. The BRCA1-BARD1 heterodimer coordinates a diverse range of cellular pathways such as DNA damage repair, ubiquitination and transcriptional regulation to maintain genomic stability. Regulates centrosomal microtubule nucleation. Required for normal cell cycle progression from G2 to mitosis. 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. 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. **Subunit:** Heterodimer with BARD1. Part of the BRCA1-associated genome surveillance complex (BASC), which contains BRCA1, MSH2, MSH6, MLH1, ATM, BLM, PMS2 and the RAD50-MRE11-NBN protein complex. This association could be a dynamic process changing throughout the cell cycle and within subnuclear domains. Component of the BRCA1-A complex, at least composed of the BRCA1, BARD1, UIMC1/RAP80, FAM175A/Abraxas, BRCC3/BRCC36, BRE/BRCC45 and BABAM1/NBA1. Interacts (via BRCT domains) with FAM175A/Abraxas and RBBP8. Associates with RNA polymerase II holoenzyme. Interacts with SMC1A and COBRA1/NELFB. Interacts (via

	BRCT domains) with phosphorylated BRIP1. Interacts with FANCD2 (ubiquitinated). Interacts with BAP1. Interacts with DCLRE1C/Artemis and CLSPN. Interacts with H2AFX (phosphorylated on 'Ser-140'). Interacts with CHEK1 and CHEK2. Interacts with BRCC3. Interacts (via BRCT domains) with ACACA (phosphorylated); the interaction prevents dephosphorylation of ACACA. Interacts with AURKA. Interacts with UBXN1. Part of a trimeric complex containing BRCA1, BRCA2 and PALB2. Interacts with PALB2 and this interaction is essential for its function in HRR. Interacts with BRCA2 only in the presence of PALB2 wh **Subcellular Location:** Nucleus. Note=Localizes at sites of DNA damage at double-strand breaks (DSBs); recruitment to DNA damage sites is mediated by the BRCA1-A complex. Isoform 3: Cytoplasm. Isoform 5: Cytoplasm. **Tissue Specificity:** Isoform 1 and isoform 3 are widely expressed. Isoform 3 is reduced or absent in several breast and ovarian cancer cell lines. **Post-translational modifications:** Phosphorylation at Ser-308 by AURKA is required for normal cell cycle progression from G2 to mitosis. Phosphorylated in response to IR, UV, and various stimuli that cause checkpoint activation, probably by ATM or ATR. Phosphorylation at Ser-988 by CHEK2 regulates mitotic spindle assembly. Autoubiquitinated, undergoes 'Lys-6'-linked polyubiquitination. 'Lys-6'-linked polyubiquitination does not promote degradation. **DISEASE:** Defects in BRCA1 are a cause of susceptibility to breast cancer (BC) [MIM:114480]. A common malignancy originating from breast epithelial tissue. Breast neoplasms can be distinguished by their histologic pattern. Invasive ductal carcinoma is by far the most common type. Breast cancer is etiologically and genetically heterogeneous. Important genetic factors have been indicated by familial occurrence and bilateral involvement. Mutations at more than one locus can be involved in different families or even in the same case. Note=Mutations in BRCA1 are thought to be responsible for 45% of inherited breast cancer. Moreover, BRCA1 carriers have a 4-fold increased risk of colon cancer, whereas male carriers face a 3-fold increased risk of prostate cancer. Cells lacking BRCA1 show defects in DNA repair by homologous recombination. **Similarity:** Contains 2 BRCT domains. Contains 1 RING-type zinc finger. **SWISS:** P38398 **Gene ID:** 672

	Database links: Entrez Gene: 672 Human Omim: 113705 Human SwissProt: P38398 Human Unigene: 194143 Human **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. BRCA1基因是最早被发现的乳腺癌易感基因其突变和家族性乳腺癌、卵巢癌的发病有关。
Picture:	 U-937 cells were fixed with 4% PFA for 10min at room temperature,permeabilized with 90% ice-cold methanol for 20 min at room temperature, and incubated in 5%

BSA blocking buffer for 30 min at room temperature. Cells were then stained with Phospho-BRCA1 (Ser1524) Antibody(SL3014R)at 1:100 dilution in blocking buffer and incubated for 30 min at room temperature, washed twice with 2%BSA in PBS, followed by secondary antibody incubation for 40 min at room temperature. Acquisitions of 20,000 events were performed. Cells stained with primary antibody (green), and isotype control (orange).



Blank control (blue line): HL60(fixed with 2% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min at room temperature).

Primary Antibody (green line): Rabbit Anti-Phospho-BRCA1 (Ser1524)antibody (SL3014R),Dilution: 1μg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE,Dilution: 1μg /test.