

# Anti-BRCA1 (phospho S1189) antibody ab3542

## 1 References

### 製品の概要

製品名	Anti-BRCA1 (phospho S1189) antibody
製品の詳細	Rabbit polyclonal to BRCA1 (phospho S1189)
由来種	Rabbit
アプリケーション	<b>適用あり:</b> WB
種交差性	<b>交差種:</b> Human
免疫原	Synthetic peptide corresponding to Human BRCA1 (phospho S1189). Phosphorylated synthetic peptide, which represented a portion of human Breast Cancer Gene 1 (GeneID 672) around serine 1189 according to the numbering given in entry NP_009225.1.
ポジティブ・コントロール	HeLa whole cell lysate (25µg/lane) treated with 10 Gy IR.
特記事項	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
バッファー	<p>pH: 7</p> <p>Preservative: 0.1% Sodium azide</p> <p>Constituents: 0.021% PBS, 1.764% Sodium citrate, 1.815% Tris</p>
精製度	Immunogen affinity purified
特記事項 (精製)	Antibodies that were not phospho-specific were removed by solid phase absorption. Antibodies specific for phospho BRCA 1 (Ser 1189) were affinity purified using the phospho peptide immobilized on solid support.
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

## アプリケーション

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アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		Use at an assay dependent concentration.

## ターゲット情報

機能	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.
組織特異性	Isoform 1 and isoform 3 are widely expressed. Isoform 3 is reduced or absent in several breast and ovarian cancer cell lines.
パスウェイ	Protein modification; protein ubiquitination.
関連疾患	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. Defects in BRCA1 are a cause of susceptibility to breast-ovarian cancer familial type 1 (BROVCA1) [MIM:604370]. A condition associated with familial predisposition to cancer of the breast and ovaries. Characteristic features in affected families are an early age of onset of breast cancer (often before age 50), increased chance of bilateral cancers (cancer that develop in both breasts, or both ovaries, independently), frequent occurrence of breast cancer among men, increased incidence of tumors of other specific organs, such as the prostate. Note=Mutations in BRCA1 are thought to be responsible for more than 80% of inherited breast-ovarian cancer. Defects in BRCA1 are a cause of genetic susceptibility to ovarian cancer [MIM:113705].
配列類似性	Contains 2 BRCT domains. Contains 1 RING-type zinc finger.
ドメイン	The BRCT domains recognize and bind phosphorylated pSXXF motif on proteins. The interaction

with the phosphorylated pSXXF motif of FAM175A/Abraxas, recruits BRCA1 at DNA damage sites.

The RING-type zinc finger domain interacts with BAP1.

#### 翻訳後修飾

Phosphorylation at Ser-308 by STK6/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.

Autoubiquitinated, undergoes 'Lys-6'-linked polyubiquitination. 'Lys-6'-linked polyubiquitination does not promote degradation.

#### 細胞内局在

Cytoplasm; Nucleus. Localizes at sites of DNA damage at double-strand breaks (DSBs) and recruitment to DNA damage sites is mediated by the BRCA1-A complex.

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