


Anti-BRCA1 antibody [EPR19433] ab213929

リコンビナント **RabMAb**

★★★★★ **2 Abreviews** **2 References** **画像数 7**

製品の概要

製品名	Anti-BRCA1 antibody [EPR19433]
製品の詳細	Rabbit monoclonal [EPR19433] to BRCA1
由来種	Rabbit
アプリケーション	適用あり: IHC-P, ICC/IF
種交差性	交差種: Human 交差が予測される動物種: Common marmoset  非交差種: Mouse
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	IHC-P: Human breast, breast cancer and ovary cancer tissues. ICC/IF: MCF7 cells.
特記事項	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here . Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents .

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
バッファー	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR19433
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、次のテスト済みアプリケーションにおけるab213929の使用に適用されます**
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
IHC-P	★★★★★ (1)	1/400. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. Perform heat mediated antigen retrieval using Universal HIER antigen retrieval reagent (10X) (ab208572).
ICC/IF		1/1000.

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.

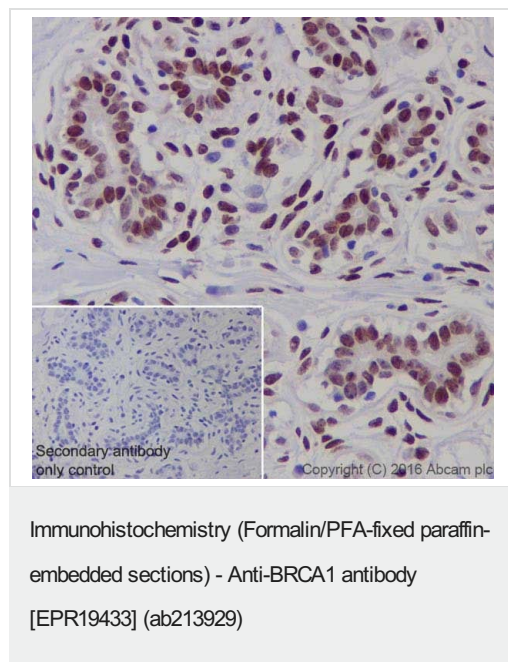
翻訳後修飾

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.

画像



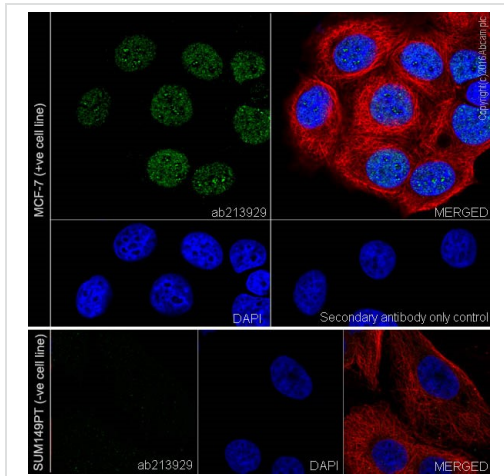
Immunohistochemical analysis of paraffin-embedded human breast tissue labeling BRCA1 with ab213929 at 1/400 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Strong nuclear staining on epithelium cells of human breast is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



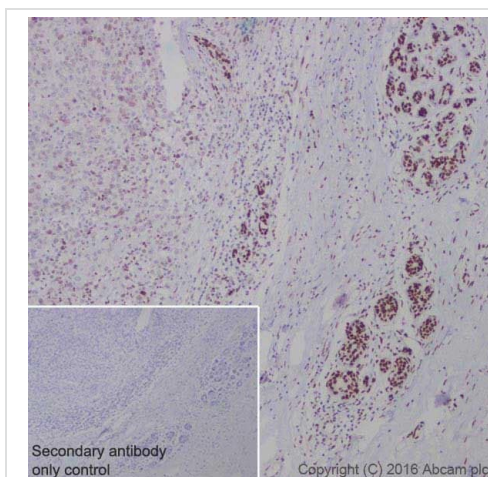
Immunocytochemistry/ Immunofluorescence - Anti-BRCA1 antibody [EPR19433] (ab213929)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized MCF7 (Human breast adenocarcinoma cell line) cells labeling BRCA1 with ab213929 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear staining on MCF7 cell line. The nuclear counterstain is DAPI (blue).

Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) ([ab195889](#)) (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution.

Negative control: No staining on SUM149PT cell line, which carried the 2288delT mutation of BRCA1 [PMID: 16397213].



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BRCA1 antibody [EPR19433] (ab213929)

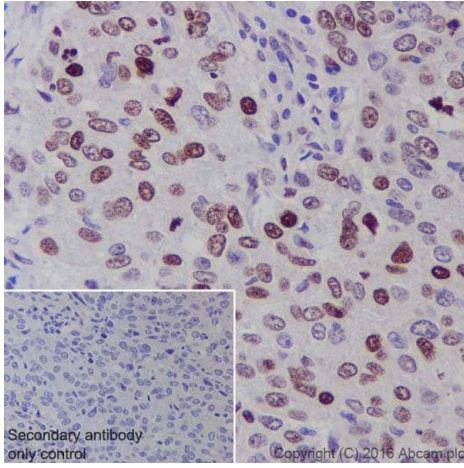
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue labeling BRCA1 with ab213929 at 1/400 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)).

Lower nuclear staining intensity in tumor cells (left) as compared to its adjacent non-tumor tissue (right).

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BRCA1 antibody [EPR19433] (ab213929)

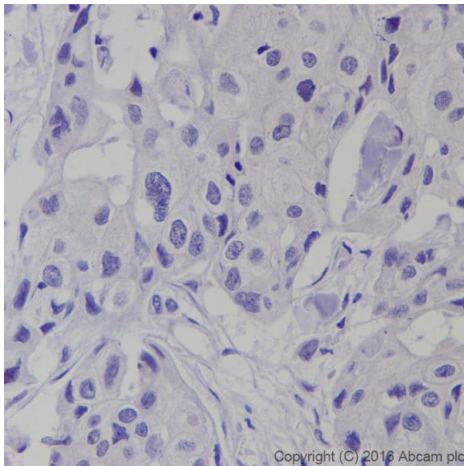
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue labeling BRCA1 with ab213929 at 1/400 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Strong nuclear staining on a region of tumor cells from human breast cancer tissue is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



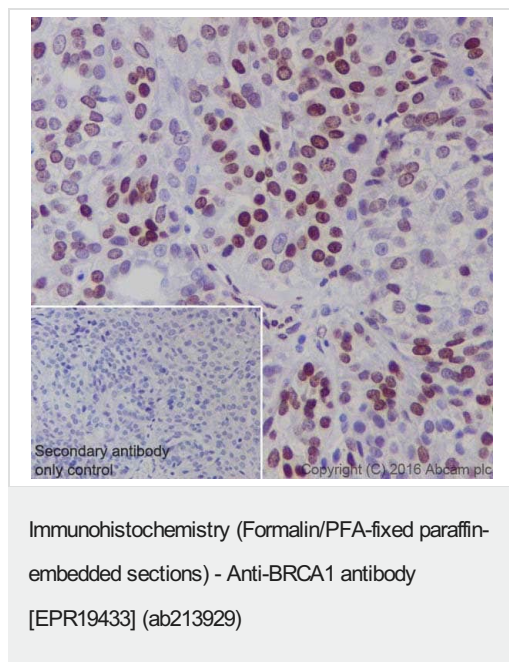
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BRCA1 antibody [EPR19433] (ab213929)

Immunohistochemical analysis of paraffin-embedded human breast cancer tissue labeling BRCA1 with ab213929 at 1/400 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Absent staining on this case of human breast cancer is observed.

Counter stained with Hematoxylin.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemical analysis of paraffin-embedded human ovary cancer tissue labeling BRCA1 with ab213929 at 1/400 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).


Strong nuclear staining on a region of tumor cells from human ovary cancer tissue is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-BRCA1 antibody [EPR19433] (ab213929)

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