

Product datasheet

Anti-BRCA2 antibody ab53887

★★★★★ 1 Abreviews 1 References 1 Image

Overview

Product name	Anti-BRCA2 antibody
Description	Rabbit polyclonal to BRCA2
Host species	Rabbit
Tested applications	Suitable for: IHC-Fr, IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Cat, Dog, Chinese hamster
Immunogen	Synthetic peptide: LIPSNDBGKAGKEEFY conjugated to KLH, corresponding to amino acids 2587-2601 of the native molecule of Human BRCA2

[Run BLAST with](#)

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General notes

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. 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, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.20 Preservative: 0.09% Sodium azide Constituent: PBS
Purity	Ammonium Sulphate Precipitation
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab53887** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-Fr		Use at an assay dependent concentration.
IHC-P	★★★★☆	Use at an assay dependent concentration.

Target

Function	Involved in double-strand break repair and/or homologous recombination. Binds RAD51 and potentiates recombinational DNA repair by promoting assembly of RAD51 onto single-stranded DNA (ssDNA). Acts by targeting RAD51 to ssDNA over double-stranded DNA, enabling RAD51 to displace replication protein-A (RPA) from ssDNA and stabilizing RAD51-ssDNA filaments by blocking ATP hydrolysis. May participate in S phase checkpoint activation. Binds selectively to ssDNA, and to ssDNA in tailed duplexes and replication fork structures.
Tissue specificity	Highest levels of expression in breast and thymus, with slightly lower levels in lung, ovary and spleen.
Involvement in disease	<p>Defects in BRCA2 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.</p> <p>Defects in BRCA2 are the cause of pancreatic cancer type 2 (PNCA2) [MIM:613347]. It is a malignant neoplasm of the pancreas. Tumors can arise from both the exocrine and endocrine portions of the pancreas, but 95% of them develop from the exocrine portion, including the ductal epithelium, acinar cells, connective tissue, and lymphatic tissue.</p> <p>Defects in BRCA2 are a cause of susceptibility to breast-ovarian cancer familial type 2 (BROVCA2) [MIM:612555]. 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</p>

breasts, or both ovaries, independently), frequent occurrence of breast cancer among men, increased incidence of tumors of other specific organs, such as the prostate. Defects in BRCA2 are the cause of Fanconi anemia complementation group D type 1 (FANCD1) [MIM:605724]. It is a disorder affecting all bone marrow elements and resulting in anemia, leukopenia and thrombopenia. It is associated with cardiac, renal and limb malformations, dermal pigmentary changes, and a predisposition to the development of malignancies. At the cellular level it is associated with hypersensitivity to DNA-damaging agents, chromosomal instability (increased chromosome breakage) and defective DNA repair. Defects in BRCA2 are a cause of glioma type 3 (GLM3) [MIM:613029]. Gliomas are benign or malignant central nervous system neoplasms derived from glial cells. They comprise astrocytomas and glioblastoma multiforme that are derived from astrocytes, oligodendrogliomas derived from oligodendrocytes and ependymomas derived from ependymocytes.

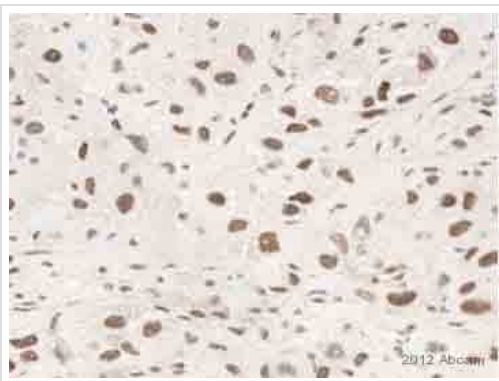
Sequence similarities

Contains 8 BRCA2 repeats.

Post-translational modifications

Phosphorylated by ATM upon irradiation-induced DNA damage. Ubiquitinated in the absence of DNA damage; this does not lead to proteasomal degradation. In contrast, ubiquitination in response to DNA damage leads to proteasomal degradation.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BRCA2 antibody (ab53887)

Image courtesy of an anonymous Abreview.

ab53887 staining BRCA2 in human breast cancer xenograft by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). Tissue was fixed in formaldehyde and a heat mediated antigen retrieval step was performed using citrate buffer pH6. Samples were then blocked with 3% BSA for 30 minutes at 25°C and then incubated with ab53887 at a 1/100 for 16 hours at 25°C. The secondary used was an undiluted HRP conjugated goat polyclonal.

Mammary cancer xenograft of MDA-MB-231 is BRCA2 expressive.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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