

Datasheet: MCA5945GT

Description:	MOUSE ANTI BRCA1
Specificity:	BRCA1
Other names:	BREAST CANCER TYPE 1 SUSCEPTIBILITY PROTEIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	6B4
Isotype:	IgG1
Quantity:	50 µg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin	▪			
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting	▪			1/250 - 1/1000
Immunofluorescence	▪			1/400

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Human
Species Cross Reactivity	<p>Reacts with: Mouse</p> <p>N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.</p>
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from ascites

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	<i>E.coli</i> expressed BRCA1 protein fragment corresponding to amino acids 341-748.
External Database Links	<p>UniProt:</p> <p>P38398 Related reagents</p> <p>P48754 Related reagents</p> <p>Entrez Gene:</p> <p>672 BRCA1 Related reagents</p> <p>12189 Brca1 Related reagents</p>
Synonyms	RNF53
Fusion Partners	Spleen cells from immunized mice were fused with cells of the mouse NS1 myeloma cell line.

Specificity **Mouse anti BRCA1 antibody, clone 6B4** recognizes both human and mouse BRCA1, otherwise known as breast cancer type 1 susceptibility protein, a tumor suppressor gene and major player in DNA damage repair, predominantly expressed in the nucleus during the S/G2 phase of the cell cycle.

Along with BRCA2, BRCA1 is a high risk gene which is associated with hereditary breast and ovarian cancers, particularly at a younger age of diagnosis. Women carrying the BRCA1 mutation have a 50-95% chance of developing breast cancer in later life, but genetic screening and increased awareness of preventative surgery can reduce this risk significantly ([Ford et al. 1994](#)). Deleterious BRCA1 mutations may also increase the risk of other cancers in both males and females including pancreatic cancer, although in males pancreatic and prostate cancer appear to be more strongly associated with BRCA2 gene mutations.

BRCA1 is a key marker of triple-negative breast cancer/TNBC (ER-/PR-/HER2-), a high risk aggressive cancer which makes up about 15% of invasive breast cancers, and which lacks the benefit of specific therapy that targets the three major proteins ER/PR/HER2. Triple-negative tumors are predominantly basal-like, poorly differentiated and of higher [histological grade](#). Younger women have an increased rate of basal or BRCA related TNBC, compared with the higher proportion of apocrine, normal-like and rare subtypes of TNBC, seen in older women.

Mouse anti BRCA1, clone 6B4 recognizes the full length ~220 kDa BRCA1, but does not recognize the delta11b splice variant. The breast milk cell line HBL100 can be used as a

positive control.

**Histology Positive
Control Tissue**

Breast carcinoma

References

1. Scully, R. *et al.* (1996) Location of BRCA1 in human breast and ovarian cancer cells. [Science. 272 \(5258\): 123-6.](#)
 2. Chen, Y. *et al.* (1996) Response: Location of BRCA1 in Human Breast and Ovarian Cancer Cells. [Science. 272 \(5258\): 125-6.](#)
 3. Zhong, Q. *et al.* (1999) Association of BRCA1 with the hRad50-hMre11-p95 complex and the DNA damage response. [Science. 285 \(5428\): 747-50.](#)
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Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee

12 months from date of despatch

**Health And Safety
Information**

Material Safety Datasheet documentation #10040 available at:
<https://www.bio-rad-antibodies.com/SDS/MCA5945GT>
10040

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®550 , DyLight®650 , DyLight®680 , DyLight®800 , FITC , HRP
Goat Anti Mouse IgG (STAR70...)	FITC

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M421858:230731'

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