

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse BRCA1 C-Terminus.
Source	Monoclonal Mouse IgG _{2B} Clone # 440621
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human BRCA1 C-Terminus Arg1634-Tyr1863 Accession # P38398
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

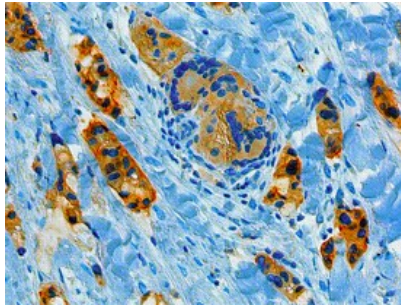
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below

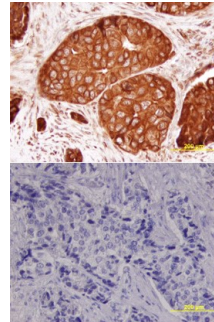
DATA

Immunohistochemistry



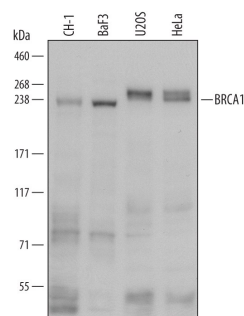
BRCA1 in Human Breast Cancer Tissue. BRCA1 was detected in immersion fixed paraffin-embedded sections of human breast cancer tissue using Human BRCA1 Monoclonal Antibody (Catalog # MAB22101) at 5 µg/mL overnight at 4 °C. Before incubation with the primary antibody tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

Immunohistochemistry



BRCA1 in Human Breast. BRCA1 was detected in immersion fixed paraffin-embedded sections of human breast array using Human BRCA1 Monoclonal Antibody (Catalog # MAB22101) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

Western Blot



Detection of Human/Mouse BRCA1 by Western Blot. Western blot shows lysates of CH-1 mouse B cell lymphoma cell line, BaF3 mouse pro-B cell line, U2OS human osteosarcoma cell line and HeLa human cervical epithelial carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Human BRCA1 Monoclonal Antibody (Catalog # MAB22101) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for BRCA1 at approximately 240 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The BRCA1 (BR^east CAⁿcer gene 1) tumor suppressor protein has many reported functions. In addition to mediating signal transduction in DNA damage and repair responses, BRCA1 forms a heterodimer with BARD1 and regulates transcriptional activity, assisting in the preservation of chromosomal stability. BRCA1 is one of the first proteins recruited to sites of DNA double-strand breaks and serves as part of a scaffold for assembling other DNA damage response or repair factors, including MSH2, MLH1, ATM and PMS2.