Product Datasheet

BRCA1 Antibody (6B4) - Azide and BSA Free
NB100-404

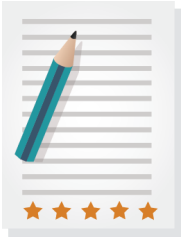
Unit Size: 100 ul

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

Publications: 11

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB100-404

Updated 9/25/2025 v.20.1



NB100-404

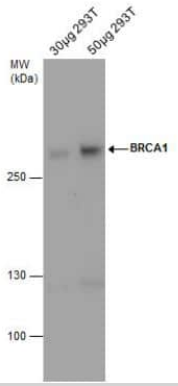
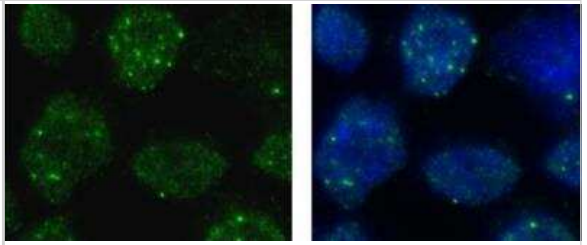
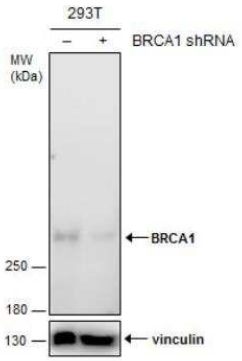
BRCA1 Antibody (6B4) - Azide and BSA Free

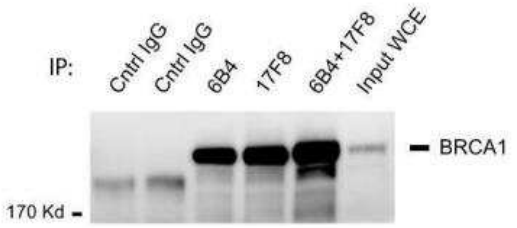
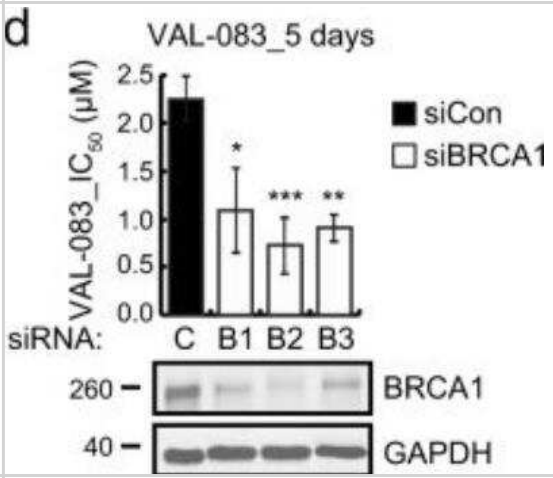
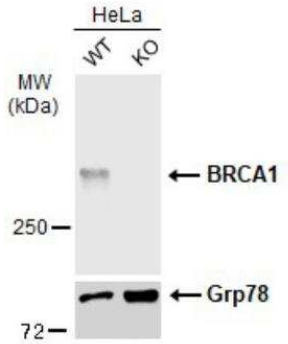
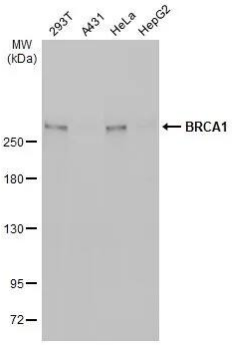
Product Information	
Unit Size	100 ul
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	6B4
Preservative	No Preservative
Isotype	IgG1
Purity	Protein G purified
Buffer	PBS, 20% Glycerol
Target Molecular Weight	220 kDa

Product Description	
Description	Novus Biologicals Knockout (KO) Validated Mouse BRCA1 Antibody (6B4) - Azide and BSA Free (NB100-404) is a monoclonal antibody validated for use in IHC, WB, ICC/IF, IP and ChIP. Anti-BRCA1 Antibody: Cited in 10 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	672
Gene Symbol	BRCA1
Species	Human
Specificity/Sensitivity	This recognizes BRCA1, a 220-kDa nuclear phosphoprotein, and does not recognize the exon 11 splice variant. Mutations in this tumor suppressor gene greatly increase the risk of breast cancer.
Immunogen	BRCA1 protein fragment expressed in E. coli corresponding to amino acids 341-748.

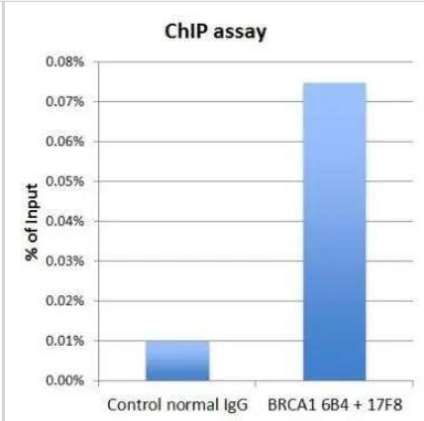
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation, Chromatin Immunoprecipitation (ChIP), Knockdown Validated, Knockout Validated
Recommended Dilutions	Western Blot 1:500-1:3000, Immunohistochemistry 1:10 - 1:500, Immunocytochemistry/ Immunofluorescence 1:100-1:1000, Immunoprecipitation, Immunohistochemistry-Paraffin 1:10 - 1:500, Chromatin Immunoprecipitation (ChIP), Knockout Validated, Knockdown Validated
Application Notes	IHC reactivity reported in (PMID: 10910365).

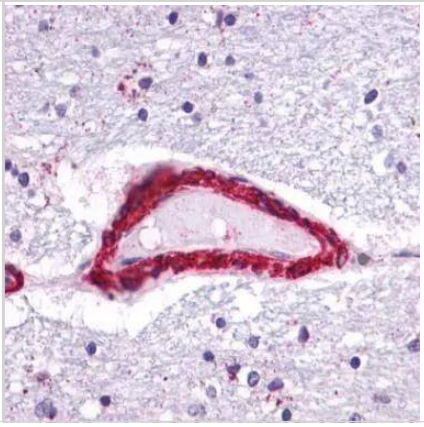
Images

Western Blot: BRCA1 Antibody (6B4) [NB100-404] - Whole cell extracts (30 and 50 ug) was separated by 5% SDS-PAGE, and the membrane was blotted with BRCA1 antibody at a dilution of 1:500.	
Immunocytochemistry/Immunofluorescence: BRCA1 Antibody (6B4) [NB100-404] - Staining of BRCA1 nuclear foci induced by ionizing radiation. IR-treated (2 hr /4 gray IR) U2OS cells were pre-extracted with CSK buffer on ice for 4 min before fixation with 4% PFA in room temperature, and then subjected to immunostaining. DAPI was used to counterstain nucleus. 6B4 was used. Secondary antibody (Alexa Fluor-488) used for detection of primary antibody (BRCA1 antibody 6B4)	
Western Blot: BRCA1 Antibody (6B4) [NB100-404] - Non-transfected (-) and transfected (+) 293T whole cell extracts (60 ug) were separated by 5% SDS-PAGE, and the membrane was blotted with BRCA1 antibody [6B4] - ChIP grade diluted at 1:500.	
Western Blot: BRCA1 Antibody (6B4) [NB100-404] - NB100-404 was used at 1:1000 dilution for Western blot assay of lysates from cells transfected with control or BRCA1-specific siRNA. Lysates were prepared at the indicated times following transfection. RAD50 antibody (13B3) (NB100-147) was used as a loading control.	

Immunoprecipitation: BRCA1 Antibody (6B4) [NB100-404] - 6B4 alone (4 microgram), 17F8 alone (4 microgram), 6B4 plus 17F8 (2 microgram each), and mouse control normal IgG were used in an immunoprecipitation assay with MCF7 cell extract. Immunoprecipitated BRCA1 was detected in WB using BRCA1 antibody 6B4 at 1:1000 dilution. HeLa whole cell extract (20 microgram) was used as input in the Western blot assay.	
Western Blot: BRCA1 Antibody (6B4) [NB100-404] - DAG-induced DNA damage is repaired by homologous recombination. A549 cells were transfected with either negative control (C) or three BRCA1-targeting siRNAs (B1, siBRCA1-2; B2, siBRCA1-15; or B3, siBRCA1-17) for 24 h. Cells were then seeded in 96-well culture plates and treated with different concentrations of VAL-083 (0, 100 nM, 500 nM, 1 uM, 1.5 uM, 2.5 uM, 5 uM, 10 uM, 25 uM, 50 uM, 100 uM, and 200 uM) for 5 days. Following the treatment, crystal violet assay was performed to detect the absorbance at 560 nm wavelength. Cell lysates from the control or BRCA1-knockdown cells were analyzed by western blot with antibody against BRCA1, and GAPDH was used as a loading control. Image collected and cropped by CiteAb from the following publication (https://www.nature.com/articles/s41419-018-1069-9) licensed under a CC-BY license.	
Western Blot: BRCA1 Antibody (6B4) [NB100-404] - Wild-type (WT) and BRCA1 knockout (KO) HeLa cell extracts (30 ug) were separated by 5% SDS-PAGE, and the membrane was blotted with BRCA1 antibody, diluted at 1:500. A HRP-conjugated anti-mouse IgG antibody was used to detect the primary antibody, and the signal was developed with Trident ECL plus-Enhanced.	
Western Blot: BRCA1 Antibody (6B4) [NB100-404] - Various whole cell extracts (30 ug) were separated by 5% SDS-PAGE, and the membrane was blotted with BRCA1 antibody [6B4] - ChIP grade (NB100-404) diluted at 1:500. The HRP-conjugated anti-mouse IgG antibody was used to detect the primary antibody, and the signal was developed with Trident femto Western HRP Substrate.	

BRCA1 antibody 6B4 (NB100-404) and BRCA1 antibody 17F8 was validated by a Q-PCR assay.





Publications

Wei F, Li W, Zhou T et al. Unveiling FAM111B: A Pan-Cancer Biomarker for DNA Repair and Immune Infiltration. International Journal of Molecular Sciences 2025-04-17 [PMID: 40243892]

Wei YS, Chen YL, Li WY et al. Antioxidant Nanoparticles Restore Cisplatin-Induced Male Fertility Defects by Promoting MDC1-53bp1-Associated Non-Homologous DNA Repair Mechanism and Sperm Intracellular Calcium Influx International Journal of Nanomedicine 2023-08-07 [PMID: 37576465] (Immunohistochemistry, Human)

Yu L, Wu D., et Al. SMARCA2 and SMARCA4 Participate in DNA Damage Repair Front Biosci (Landmark Ed) 2024-07-31 [PMID: 39082357]

Di Agostino S, Canu V, Donzelli S et al. HSF-1/miR-145-5p transcriptional axis enhances hyperthermic intraperitoneal chemotherapy efficacy on peritoneal ovarian carcinosis Cell death & disease 2023-08-19 [PMID: 37598177] (Immunohistochemistry, Human)

Swift M, Azizkhan-Clifford J DNA damage-induced sumoylation of Sp1 induces its interaction with RNF4 and degradation in S phase to remove 53BP1 from DSBs and permit HR DNA Repair 2022-02-01 [PMID: 35124373] (Chemotaxis, ICC/IF, Human)

Swift ML, Beishline K, Flashner S, Azizkhan-Clifford J DSB repair pathway choice is regulated by recruitment of 53BP1 through cell cycle-dependent regulation of Sp1 Cell reports 2021-03-16 [PMID: 33730584] (ICC/IF, Chemotaxis)

Zhai B, Li Y, Kotapalli SS et al. Dianhydrogalactitol synergizes with topoisomerase poisons to overcome DNA repair activity in tumor cells Cell Death Dis 2020-07-24 [PMID: 32709853] (WB, Human)

Zhai B, Steino A, Bacha J et al. Dianhydrogalactitol induces replication-dependent DNA damage in tumor cells preferentially resolved by homologous recombination. Cell Death Dis. 2018-10-03 [PMID: 30283085] (WB, Human)

Bernard-Gallon DJ, Dechelotte PJ, Le Corre L et al. Differential expressions of BRCA1 and BRCA2 in infantile gynecomastia. Anticancer Res 2004-01-01 [PMID: 15015615] (IF/IHC, Human)

Li S, Ting NS, Zheng L et al. Functional link of BRCA1 and ataxia telangiectasia gene product in DNA damage response. Nature 2000-07-01 [PMID: 10910365] (IF/IHC, Human)

Berger AK, Cortese GP, Amodeo KD et al. Parkin selectively alters the intrinsic threshold for mitochondrial cytochrome c release. Hum Mol Genet;18(22):4317-28. 2009-11-15 [PMID: 19679562]

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Products Related to NB100-404

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NB100-404

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications