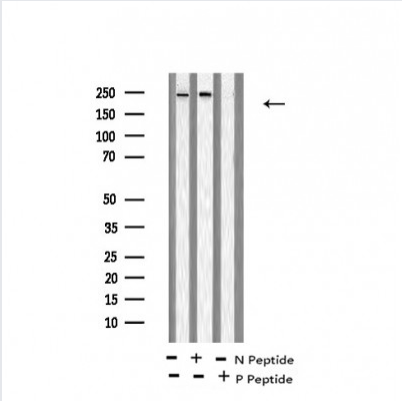
BRCA1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	BRCA1, Polyclonal Antibody
Full Product Name	Phospho-BRCA1 (Ser1387) Antibody
Product Gene Name	anti-BRCA1 antibody
Product Synonym Names	BRCA 1; BRCA1; BRCA1 DNA repair associated; BRCA1/BRCA2 containing complex subunit 1; BRCA1/BRCA2-containing complex, subunit 1; BRCA1_HUMAN; BRCAI; BRCC 1; BRCC1; Breast and ovarian cancer susceptibility protein 1; Breast Cancer 1; Breast Cancer 1 Early Onset; Breast cancer type 1 susceptibility protein; BROVCA1; FANCS; IRIS; PNCA4; PPP1R53; Protein phosphatase 1 regulatory subunit 53; PSCP; RING finger protein 53; RNF53
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Concentration	1mg/ml (lot specific)
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.
Antibody/Peptide Pairs	BRCA1 (Ser1387) peptide (MBS9619165) is used for blocking the activity of BRCA1 (Ser1387) antibody (MBS9614203)
Molecular Weight	220kDa
Chromosome Location	Chromosome: 17; NC_000017.10 (41196312..41277500, complement). Location: 17q21
OMIM	113705
3D Structure	ModBase 3D Structure for P38398
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Immunogen	A synthesized peptide derived from human BRCA1 around the phosphorylation site of Ser1387.
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-BRCA1 antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-BRCA1 antibody	WB 1:1000-3000, IHC 1:50-1:200 *The optimal dilutions should be determined by the end user. **IMPORTANT:** For western blot, incubate membrane with diluted primary Ab in 5% w/v milk , 1X TBS, 0.1% Tween20 at 4°C with gentle shaking, overnight.
Related Product Information for anti-BRCA1 antibody	MBS9614203 is an antibody targeting BRCA1. Also known as Phospho-BRCA1 (Ser1387) Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.

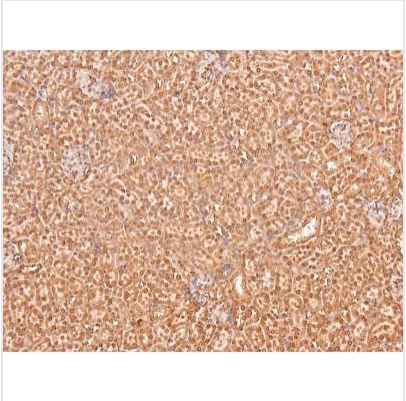
Other Notes	Small volumes of anti-BRCA1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



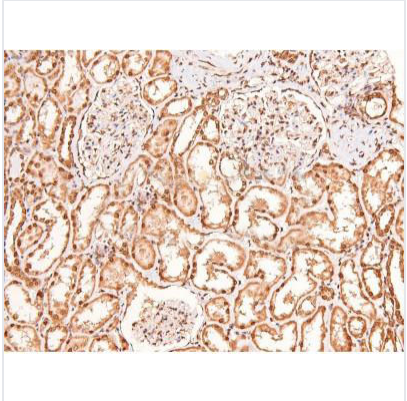
Western Blot (WB) of anti-BRCA1 antibody
Western blot analysis of BRCA1 (Phospho-Ser1387) using EGF treated A431 whole cell lysates.-/+ means absence or presence of N peptideï¼ˆnon-phospho peptide) and P peptide(phospho peptide).



Immunohistochemistry (IHC) of anti-BRCA1 antibody
Staining Rat lung tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



Immunohistochemistry (IHC) of anti-BRCA1 antibody
At 1/200 staining Mouse kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



Immunohistochemistry (IHC) of anti-BRCA1 antibody
At 1/200 staining Human kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BRCA1. It may not necessarily be applicable to this product.

NCBI GI #	6552299
NCBI GeneID	672
NCBI Accession #	NP_009225.1
UniProt Primary Accession #	P38398
UniProt Secondary Accession #	O15129; Q3LRJ0; Q3LRJ6; Q6IN79; Q7KYU9
UniProt Related Accession #	P38398
GenBank Nucleotide #	NM_007294.3
NCBI Official Full Name	breast cancer type 1 susceptibility protein isoform 1
NCBI Official Synonym Full Names	breast cancer 1, early onset
NCBI Official Symbol	BRCA1

NCBI Official Synonym Symbols	IRIS; PSCP; BRCAI; BRCC1; PNCA4; RNF53; BROVCA1; PPP1R53
UniProt Protein Name	Breast cancer type 1 susceptibility protein
UniProt Synonym Protein Names	RING finger protein 53
Protein Family	Breast cancer type 1 susceptibility protein
UniProt Gene Name	BRCA1
UniProt Synonym Gene Names	RNF53
UniProt Entry Name	BRCA1_HUMAN
NCBI Protein Information	breast cancer type 1 susceptibility protein; RING finger protein 53; BRCA1/BRCA2-containing complex, subunit 1; protein phosphatase 1, regulatory subunit 53; breast and ovarian cancer susceptibility protein 1; breast and ovarian cancer sususceptibility pr
NCBI Summary for BRCA1	This gene encodes a nuclear phosphoprotein that plays a role in maintaining genomic stability, and it also acts as a tumor suppressor. The encoded protein combines with other tumor suppressors, DNA damage sensors, and signal transducers to form a large multi-subunit protein complex known as the BRCA1-associated genome surveillance complex (BASC). This gene product associates with RNA polymerase II, and through the C-terminal domain, also interacts with histone deacetylase complexes. This protein thus plays a role in transcription, DNA repair of double-stranded breaks, and recombination. Mutations in this gene are responsible for approximately 40% of inherited breast cancers and more than 80% of inherited breast and ovarian cancers. Alternative splicing plays a role in modulating the subcellular localization and physiological function of this gene. Many alternatively spliced transcript variants, some of which are disease-associated mutations, have been described for this gene, but the full-length natures of only some of these variants has been described. A related pseudogene, which is also located on chromosome 17, has been identified. [provided by RefSeq, May 2009]

UniProt Comments for BRCA1	BRCA1: the BRCA1-BARD1 heterodimer coordinates a diverse range of cellular pathways such as DNA damage repair, ubiquitination and transcriptional regulation to maintain genomic stability. Acts by mediating ubiquitin E3 ligase activity that is required for its tumor suppressor function. Plays a central role in DNA repair by facilitating cellular response to DNA repair. 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 ACC1 and preventing its dephosphorylation. Defects in BRCA1 are a cause of genetic susceptibility to breast cancer. Mutations in BRCA1 are thought to be responsible for more than 80% of inherited breast-ovarian cancer. Part of the BRCA1-associated genome surveillance complex (BASC), which contains BRCA1, MSH2, MSH6, MLH1, ATM, BLM, PMS2 and the RAD50-MRE11-NBN protein complex. This association may be a dynamic process changing throughout the cell cycle and within subnuclear domains. Interacts (via BRCT domains) with CTIP. Associates with RNA polymerase II holoenzyme. Interacts with SMC1 and COBRA1. Interacts (via BRCT domains) with BRIP1. Interacts with FANCD2 (ubiquitinated). Interacts with BAP1. Interacts with Artemis and claspin. Interacts with H2AFX (phosphorylated on S140). Interacts with CHK1. Interacts with BRCC3. Five human isoforms are produced by alternative splicing and alternative initiation. Isoform 1 and isoform 3 are widely expressed. Isoform 1 is largely nuclear, while isoforms 3 and 5 are cytoplasmic. Protein type: Ubiquitin conjugating system; Nuclear receptor co-regulator; Transcription, coactivator/corepressor; EC 6.3.2.-; Tumor suppressor; Ubiquitin ligase Chromosomal Location of Human Ortholog: 17q21 Cellular Component: nucleoplasm; gamma-tubulin ring complex; condensed nuclear chromosome; protein complex; cytoplasm; BRCA1-BARD1 complex; plasma membrane; chromosome; nucleus; ribonucleoprotein complex; ubiquitin ligase complex Molecular Function: tubulin binding; protein binding; enzyme binding; DNA binding; androgen receptor binding; zinc ion binding; RNA binding; ubiquitin protein ligase binding; transcription coactivator activity; ubiquitin-protein ligase activity; damaged DNA binding; ligase activity Biological Process: genetic imprinting; apoptosis; positive regulation of transcription, DNA-dependent; dosage compensation, by inactivation of X chromosome; centrosome cycle; protein ubiquitination; negative regulation of histone H3-K4 methylation; positive regulation of histone H3-K4 methylation; chromosome segregation; negative regulation of histone acetylation; regulation of apoptosis; DNA damage response, signal transduction by p53 class mediator resulting in transcription of p21 class mediator; double-strand break repair; DNA replication; negative regulation of fatty acid biosynthetic process; fatty acid biosynthetic process; negative regulation of histone H3-K9 methylation; positive regulation of histone H3-K9 methylation; protein autoubiquitination; positive regulation of DNA repair; chordate embryonic development; postreplication repair; DNA repair; negative regulation of centriole replication; double-strand break repair via homologous recombination; regulation of cell proliferation; regulation of transcription from RNA polymerase II promoter; positive regulation of angiogenesis; DNA damage response, signal transduction resulting in induction of apoptosis; regulation of transcription from RNA polymerase III promoter; positive regulation of protein ubiquitination; response to estrogen stimulus; androgen receptor signaling pathway; positive regulation of histone acetylation; positive regulation of transcription from RNA polymerase II promoter; response to ionizing radiation; G2/M transition DNA damage checkpoint; negative regulation of transcription, DNA-dependent; response to DNA damage stimulus Disease: Breast-ovarian Cancer, Familial, Susceptibility To, 1; Pancreatic Cancer, Susceptibility To, 4; Breast Cancer
Research Articles on BRCA1	**1.** RIF1 not only acts downstream of 53BP1 and counteracts BRCA1-mediated end resection but also has a secondary role in promoting BLM function in DNA repair.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.

Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-mouse-rat-antibody/brca1/9614203