

Active Recombinant Human BRCA1, His-tagged

Cat. No. BRCA1-8497H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human BRCA1, fused with His tag, was expressed in Sf21 Cells.
Species	Human
Source	Sf21 Cells
Description	The human BRCA1, the product of breast and ovarian cancer gene 1, is a hyperphosphorylated protein functioning as a tumor suppressor involved in both transcription regulation and DNA repair. BRCA1 associates with RAD51 and has shown to be required for transcription-coupled repair of DNA damage as well as for the repair of chromosomal double-strand breaks . Association with a human SWI/SNF-related complex has recently suggested a potential role of BRCA1 in linking chromatin remodeling to breast cancer.
Form	20 mM Tris-Cl, pH 7.9, 20% Glycerol, 100 mM KCl, 1 mM DTT and 0.2 mM EDTA
Bio-activity	1 unit equals 1 ng of purified protein. 1 unit is sufficient for a gel mobility shift assay in a 20µl reaction; 50 units are sufficient for reconstituted transcription assay and 100 units are sufficient for a protein-protein interaction assay.
AA Sequence	MDLSALRVEE VQNVINAMQK ILECPICLEL IKEPVSTKCD HIFCKFCMLK LLNQKKGPSQ CPLCKNDITK RSLQESTRFS QLVEELLKII CAFQLDTGLE YANSYNFAKK ENNSPEHLKD EVSIIQSMGY RNRARLLQS EPENPSLQET SLSVQLSNLG TVRTLRTKQR IQPQKTSVYI ELGSDSSEDV VNKATYCSVG DQELLQITPQ GTRDEISLDS AKKAACEFSE TDVTNTEHHQ PSNNDLNTE

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

KRAAERHPEK YQGSSVSNLH VEPCGTNTHA SSLQHENSLL LLTKDRMNVE
KAEFCNKSQ PGLARSQHNR WAGSKETCND RRTPESTEKKV DLNADPLCER
KEWNKQKLPC SENPRDTEVD PWITLNSSIQ KVNEWFSRSD ELLGSDDSHD
GESENAKVA DVLVDLNEVD EYSGSSEKID LLASDPHEAL ICKSERVHSK
SVESNIEDKI FGKTYRKKAS LPNLSHVTEN LIIGAFVTEP QIIQERPLTN
KLKRKRRTS GLHPEDFIKK ADLAVQKTPE MINQGTNQTE QNGQVMNITN
SGHENKTKGD SIQNEKNPNP IESLEKESAF KTKAEPISSS ISNMELELNI
HNSKAPKKNR LRRKSSTRHI HALELVSRN LSPPNCTELQ IDSCSSSEEI
KKKKYNQMPV RHSRNLQLME GKEPATGAKK SNKPNEQTSK RHDSDTFPEL
KLTNAPGSFT KCSNTSELKE FVNPSLPREE KEEKLETVKV SNNAEDPKDL
MLSGERVLTQ ERSVESSSIS LVPGTDYGTQ ESISSLEVST LGKAKTEPNK
CVSQCAAFEN PKGLIHGCSK DNRNDTEGFK YPLGHEVNHS RETSIEMEEES
ELDAQYLQNT FKVSKRQSFA PFSNPGNAEE ECATFSAHSG SLKKQSPKVT
FECEQKEENQ GKNESNIKPV QTVNITAGFP VVGQKDKPVD NAKCSIKGGS
RFCLSSQFRG NETGLITPNK HGLLQNPYRI PPLFPIKSFV KTKCKKNLLE
ENFEEHSMSP EREMGNENIP STVSTISRNN IRENVFKEAS SSNINEVGSS
TNEVGSSINE IGSSDENIQA ELGRNRGPKL NAMLRGLVLQ PEVYKQSLPG
SNCKHPEIKK QEYEEVVQTV NTDFSPYLIS DNLEQPMGSS HASQVCSETP
DDLDDGEIK EDTSFAENDI KESSAVFSKS VQKGELSRSP SPFTHTHLAQ
GYRRGAKKLE SSEENLSSD EELPCFQHLL FGKVNIPSQSTRHSTVATE
CLSKNTEENL LSLKNSLNDK SNQVILAKAS QEHHLSEETK CSASLFSSQC
SELEDLTANT NTQDPFLIGS SKQMRHQSES QGVGLSDKEL VSDDEERGTS
LEENNQEEQS MDSNLGEAAS GCESETSVSE DCSGLSSQSD ILTTQQRDTM
QHNLKLQQE MAELEAVLEQ HGSQPSNSYP SIISDSSALE DLRNPEQSTS
EKAVLTSQKS SEYPISQNPE GLSADKFEVS ADSSTSKNKE PGVERSSPSK
CPSLDDRWMY HSCSGSLQNR NYPSQEELIK VVDVEEQLE
ESGPHDLTETSYLPRQDLEG TPYLESGISL FSDDPESDPS EDRAPESARV
GNIPSSSAL KVPQLKVAES AQSPAAHTT DTAGYNAMEE SVSREKPELT
ASTERVNKRMS MVVSGLTPE EFMLVYKFAR KHHITLTNLI TEETHVVMK
TDAEFVCERT LKYFLGIAGG KWVVSFWVT QSIKERKMLN EHD FEVRGDV

VNGRNHQGPK RARESQRKI FRGLEICCYG PFTNMPTDQL EWMVQLCGAS
VVKELSSFTL GTGVHPIVVV QPDAWTEENG FHAIGQMCEA PVVTREWWLD
SVALYQCQEL DTYLIPQIPH SHY

Purity >95% as determined by SDS-PAGE

Storage -80 °C

Concentration 350 µg/ml

Shipping Dry Ice

GENE INFORMATION

Gene Name [BRCA1 breast cancer 1, early onset \[Homo sapiens \]](#)

Official Symbol BRCA1

Synonyms

BRCA1; breast cancer 1, early onset; breast cancer type 1 susceptibility protein;
BRCA1/BRCA2 containing complex; subunit 1; BRCC1; PPP1R53; protein
phosphatase 1; regulatory subunit 53; RNF53; 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 susceptibility protein 1; IRIS; PSCP; BRCAI; PNCA4; BROVCA1;

Gene ID [672](#)

mRNA Refseq [NM_007294](#)

Protein Refseq [NP_009225](#)

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MIM	113705
UniProt ID	P38398
Chromosome Location	17q21-q24
Pathway	ATF-2 transcription factor network, organism-specific biosystem; ATM mediated phosphorylation of repair proteins, organism-specific biosystem; ATM mediated response to DNA double-strand break, organism-specific biosystem; Androgen Receptor Signaling Pathway, organism-specific biosystem; Aurora A signaling, organism-specific biosystem; BARD1 signaling events, organism-specific biosystem; BRCA1-associated genome surveillance complex (BASC), organism-specific biosystem;
Function	DNA binding; DNA binding; RNA binding; androgen receptor binding; damaged DNA binding; enzyme binding; ligase activity; metal ion binding; protein binding; transcription coactivator activity; transcription regulatory region DNA binding; tubulin binding; ubiquitin protein ligase binding; ubiquitin-protein ligase activity; contributes_to ubiquitin-protein ligase activity; zinc ion binding;

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