abcam

Product datasheet

Recombinant Human BRCA1 protein ab82204

2 References 1 图像

描述

产品名称	重组人BRCA1蛋白
纯度	> 95 % SDS-PAGE. Purified by affinity and FPLC chromatography.
表达系统	Baculovirus infected insect cells
Accession	P38398
蛋白长度	Full length protein
无动物成分	No
性质	Recombinant
种属	Human
序列	MDLSALRVEEVQNVINAMQKILECPICLELIKEPVSTKCDHI FCKFCMLK LLNQKKGPSQCPLCKNDITKRSLQESTRFSQLVEELLKIICA FQLDTGLE YANSYNFAKKENNSPEHLKDEVSIIQSMGYRNRAKRLLQSEP ENPSLQET SLSVQLSNLGTVRTLRTKQRIQPQKTSVYIELGSDSSEDTVN KATYCSVG DQELLQITPQGTRDEISLDSAKKAACEFSETDVTNTEHHQPS NNDLNTTE KRAAERHPEKYQGSSVSNLHVEPCGTNTHASSLQHENSSLLL TKDRMNVE KAEFCNKSKQPGLARSQHNRWAGSKETCNDRRTPSTEKKVDL NADPLCER KEWNKQKLPCSENPRDTEDVPWITLNSSIQKVNEWFSRSDEL LGSDDSHD GESESNAKVADVLDVLNEVDEYSGSSEKIDLLASDPHEALIC KSERVHSK SVESNIEDKIFGKTYRKKASLPNLSHVTENLIIGAFVTEPQI IQERPLTN KLKRKRRPTSGLHPEDFIKKADLAVQKTPEMINQGTNQTEQN GQVMNITN SGHENKTKGDSIQNEKNPNPIESLEKESAFKTKAEPISSSIS NMELELNI HNSKAPKKNRLRRKSSTRHIHALELVVSRNLSPPNCTELQID

SCSSSEEI
KKKKYNQMPVRHSRNLQLMEGKEPATGAKKSNKPNEQTSKRH
DSDTFPEL
KLTNAPGSFTKCSNTSELKEFVNPSLPREEKEEKLETVKVSN
NAEDPKDL
MLSGERVLQTERSVESSSISLVPGTDYGTQESISLLEVSTLG
KAKTEPNK
CVSQCAAFENPKGLIHGCSKDNRNDTEGFKYPLGHEVNHSRE
TSIEMEES
ELDAQYLQNTFKVSKRQSFAPFSNPGNAEEECATFSAHSGSL
KKQSPKVT
FECEQKEENQGKNESNIKPVQTVNITAGFPVVGQKDKPVDNA
KCSIKGGS
RFCLSSQFRGNETGLITPNKHGLLQNPYRIPPLFPIKSFVKT
KCKKNLLE
ENFEEHSMSPEREMGNENIPSTVSTISRNNIRENVFKEASSS
NINEVGSS
TNEVGSSINEIGSSDENIQAELGRNRGPKLNAMLRLGVLQPE
VYKQSLPG
SNCKHPEIKKQEYEEVVQTVNTDFSPYLISDNLEQPMGSSHA
SQVCSETP
DDLLDDGEIKEDTSFAENDIKESSAVFSKSVQKGELSRSPSP
FTHTHLAQ
GYRRGAKKLESSEENLSSEDEELPCFQHLLFGKVNNIPSQST
RHSTVATE
CLSKNTEENLLSLKNSLNDCSNQVILAKASQEHHLSEETKCS
ASLFSSQC
SELEDLTANTNTQDPFLIGSSKQMRHQSESQGVGLSDKELVS
DDEERGTG
LEENNQEEQSMDSNLGEAASGCESETSVSEDCSGLSSQSDIL
TTQQRDTM
QHNLIKLQQEMAELEAVLEQHGSQPSNSYPSIISDSSALEDL
RNPEQSTS
EKAVLTSQKSSEYPISQNPEGLSADKFEVSADSSTSKNKEPG
VERSSPSK
CPSLDDRWYMHSCSGSLQNRNYPSQEELIKVVDVEEQQLEES
GPHDLTET
SYLPRQDLEGTPYLESGISLFSDDPESDPSEDRAPESARVGN
IPSSTSAL
KVPQLKVAESAQSPAAAHTTDTAGYNAMEESVSREKPELTAS
TERVNKRM
SMVVSGLTPEEFMLVYKFARKHHITLTNLITEETTHVVMKTD
AEFVCERT
LKYFLGIAGGKWVVSYFWVTQSIKERKMLNEHDFEVRGDVVN
GRNHQGPK
RARESQDRKIFRGLEICCYGPFTNMPTDQLEWMVQLCGASVV
KELSSFTL
GTGVHPIVVVQPDAWTEDNGFHAIGQMCEAPVVTREWVLDSV
ALYQCQEL DTYLIPQIPHSHY

预测分子量	209 kDa
氨基酸	1 to 1863

标签	His tag C-Terminus
额外的序列信息	This protein has a 6x His tag at the C-terminus. NM_007294

技术指标

Our **Abpromise guarantee** covers the use of **ab82204** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	SDS-PAGE
形式	Liquid

制备和贮存

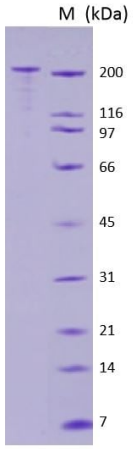
稳定性和存储	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. pH: 7.9 Constituents: 0.75% Potassium chloride, 0.0154% DTT, 0.316% Tris HCl, 0.00584% EDTA, 20% Glycerol (glycerin, glycerine)

常规信息

功能	E3 ubiquitin-protein ligase that specifically mediates the formation of 'Lys-6'-linked polyubiquitin chains and plays a central role in DNA repair by facilitating cellular responses to DNA damage. It is unclear whether it also mediates the formation of other types of polyubiquitin chains. The E3 ubiquitin-protein ligase activity is required for its tumor suppressor function. The BRCA1-BARD1 heterodimer coordinates a diverse range of cellular pathways such as DNA damage repair, ubiquitination and transcriptional regulation to maintain genomic stability. Regulates centrosomal microtubule nucleation. Required for normal cell cycle progression from G2 to mitosis. 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 ACACA and preventing its dephosphorylation. Contributes to homologous recombination repair (HRR) via its direct interaction with PALB2, fine-tunes recombinational repair partly through its modulatory role in the PALB2-dependent loading of BRCA2-RAD51 repair machinery at DNA breaks.
组织特异性	Isoform 1 and isoform 3 are widely expressed. Isoform 3 is reduced or absent in several breast and ovarian cancer cell lines.
通路	Protein modification; protein ubiquitination.
疾病相关	Defects in BRCA1 are a cause of susceptibility to breast cancer (BC) [MIM:114480]. A common malignancy originating from breast epithelial tissue. Breast neoplasms can be distinguished by their histologic pattern. Invasive ductal carcinoma is by far the most common type. Breast cancer is etiologically and genetically heterogeneous. Important genetic factors have been indicated by familial occurrence and bilateral involvement. Mutations at more than one locus can be involved in different families or even in the same case. Note=Mutations in BRCA1 are thought to be responsible for 45% of inherited breast cancer. Moreover, BRCA1 carriers have a 4-fold increased risk of colon cancer, whereas male carriers face a 3-fold increased risk of prostate cancer. Cells lacking BRCA1 show defects in DNA repair by homologous recombination. Defects in BRCA1 are a cause of susceptibility to breast-ovarian cancer familial type 1 (BROVCA1) [MIM:604370]. A condition associated with familial predisposition to cancer of the

	breast and ovaries. Characteristic features in affected families are an early age of onset of breast cancer (often before age 50), increased chance of bilateral cancers (cancer that develop in both breasts, or both ovaries, independently), frequent occurrence of breast cancer among men, increased incidence of tumors of other specific organs, such as the prostate. Note=Mutations in BRCA1 are thought to be responsible for more than 80% of inherited breast-ovarian cancer. Defects in BRCA1 are a cause of genetic susceptibility to ovarian cancer [MIM:113705].
序列相似性	Contains 2 BRCT domains. Contains 1 RING-type zinc finger.
结构域	The BRCT domains recognize and bind phosphorylated pSXXF motif on proteins. The interaction with the phosphorylated pSXXF motif of FAM175A/Abraxas, recruits BRCA1 at DNA damage sites. The RING-type zinc finger domain interacts with BAP1.
翻译后修饰	Phosphorylation at Ser-308 by STK6/AURKA is required for normal cell cycle progression from G2 to mitosis. Phosphorylated in response to IR, UV, and various stimuli that cause checkpoint activation, probably by ATM or ATR. Autoubiquitinated, undergoes 'Lys-6'-linked polyubiquitination. 'Lys-6'-linked polyubiquitination does not promote degradation.
细胞定位	Cytoplasm; Nucleus. Localizes at sites of DNA damage at double-strand breaks (DSBs) and recruitment to DNA damage sites is mediated by the BRCA1-A complex.

图片



SDS-PAGE - Recombinant Human BRCA1 protein (ab82204)

SDS-PAGE analysis of ab82204.

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