

Active Recombinant Human Breast Cancer 1, Early Onset

Cat. No. BRCA1-1018H Lot. No. (See product label)

SPECIFICATION

Product Overview

Species Human

Source Sf9 Cells

Description

The human BRCA1, the product of breast/ovary 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. Dysfunction of BRCA sensitizes cells to the inhibition of PARP [Poly(ADP-ribose) polymerase] enzymatic activity, resulting in chromosomal instability, cell cycle arrest, and subsequent apoptosis. The wild type BRCA1 (1-1863 residues) is expressed in baculovirus system and purified by an affinity column in combination with FPLC chromatography. Purified protein is greater than 95% homogeneous and contains no detectable proteases, DNase, and RNase activity.

Form

Liquid. Supplied in 20 mM Tris-HCl pH 8.0, 100 mM KCl, 0.2 mM EDTA, 1 mM DTT and 20% glycerol.

Purity

> 95% by SDS-PAGE.

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Activity	1 ng is sufficient for a gel mobility shift assay in a 20 µreaction, 50 ng are sufficient for reconstituted transcription assays and 100 ng are sufficient for a protein-protein interaction assay.
Application	Recombinant BRCA1 can be used 1) for in vitro function studies including transcription and DNA repair 2) for protein-protein interaction assay 3) for cell growth assay.
Usage	For in vitro use only.
Storage	Quality guaranteed for 12 months store at - 80°C. Avoid freeze / thaw cycles

GENE INFORMATION

Gene Name	BRCA1 breast cancer 1, early onset [Homo sapiens]
Synonyms	BRCA1; breast cancer 1, early onset; IRIS; PSCP; BRCAI; BRCC1; RNF53; BROVCA1; RING finger protein 53; BRCA1/BRCA2-containing complex, subunit 1; breast and ovarian cancer susceptibility protein 1; breast and ovarian cancer susceptibility protein; EC 6.3.2.-
Gene ID	672
mRNA Refseq	NM_007294
Protein Refseq	NP_009225
MIM	113705
UniProt ID	P38398

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Chromosome Location	17q21-q24
Pathway	Ubiquitin mediated proteolysis
Function	DNA binding; androgen receptor binding; enzyme binding; identical protein binding; ligase activity; metal ion binding; transcription coactivator activity; tubulin binding; ubiquitin-protein ligase activity; zinc ion binding
PDB rendering based on 1jm7.	