

Recombinant Human BRCA1 Protein (His Tag)

Catalog No. PDEH100027

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description

Synonyms	BRCA 1;BRCA1;BRCA1 DNA repair associated;BRCA1/BRCA2 containing complex subunit 1;BRCA1/BRCA2-containing complex;subunit 1;BRCA1;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
Species	Human
Expression Host	E.coli
Sequence	Ser1610-Tyr1863
Accession	P38398-1
Calculated Molecular Weight	28.8 kDa
Observed molecular weight	31.1 kDa
Tag	N-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4.5% trehalose, 5% mannitol, 0.01% Tween 80. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis

Background

RCA1, also named as RNF53, plays a central role in DNA repair by facilitating cellular response to DNA repair. It is required for appropriate cell cycle arrests after ionizing irradiation in both the S-phase and the G2 phase of the cell cycle. The BRCA1-BARD1 heterodimer coordinates a diverse range of cellular pathways such as DNA damage repair, ubiquitination and transcriptional regulation to maintain genomic stability. BRCA1 acts by mediating ubiquitin E3 ligase activity that is required for its tumor suppressor function. It is involved in transcriptional regulation of P21 in response to DNA damage. BRCA1 is required for FANCD2 targeting to sites of DNA damage. It may function as a transcriptional regulator. BRCA1 inhibits lipid synthesis by binding to inactive phosphorylated ACACA and preventing its dephosphorylation. The antibody is specific to BRCA1. BRCA1 appears to produce multiple splice variants. BRCA1 is a nuclear protein with a molecular mass of 220 kDa. The present study describes the isolation and expression of two cDNAs of BRCA1, including a splice variant designated BRCA1D672-4095. BRCA1D672-4095 is generated by exclusion of exon 11 by in-frame splicing and produces a 97 kDa protein. In contrast to BRCA1, BRCA1D672-4095 localizes to the

For Research Use Only

cytoplasm.