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BRCA1 Knockout HeLa Cell Lysate, Homozygous

Catalog No.: RM02000

Basic Information

Catalog No.

RM02000

Category

Cell Lysate

Parental Cell line

HeLa

Genotype

Knockout

Gene Information

Gene Symbol

BRCA1

Species

Human

Gene ID

672

Swiss Prot

P38398

Synonyms

BRCAI; BRCC1; BROVCA1; FANCS; IRIS; PNCA4; PPP1R53; PSCP; RNF53

Contact

<u>a</u>	400-999-6126
\bowtie	cn.market@abclonal.com.cn
<u>~</u>	www.abclonal.com.cn

Background

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 multisubunit 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]

Product Information

Description

BRCA1 Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing technology.

Allele-1:exon4 was deleted

Allele-2:exon4 was deleted

Mammalian cells such as human, rat and mouse cells are normally diploid with two alleles. Homozygote: both alleles were knocked out, mRNA has no signal, no expression of proteins. Heterozygote: only one allele was knocked out, the mRNA transcript levels was decreased compared to wild type, and the protein expression levels was also lower than that of the wild type.

Packaging

1 vial parental cell Lysate and 1 vial knockout cell Lysate

Shipping ConditionsAmount $4^{\circ}C$ $50\mu\text{L}, 2\mu\text{g}/\mu\text{L}.$

Storage

Lysate is stable for 12 months when stored at -20°C. Minimizing freeze-thaw cycles.

Protocol

To be used as WB control. Lysate is supplied in $1\times$ SDS sample buffer (2% SDS, 60 mM Tris-HCl pH 6.8, 10% Glycerol, 0.02% Bromophenol blue, 60 mM beta-mercaptoethanol). Lysate should be boiled for 3 - 5 minutes before loading onto gel.

Sequencing data

WT AATCACTGCCATCA*********TGACGTGGTGATAA
Mut AATCACTGCCATCA***Deletion***TGACGTGGTGATAA
Allele-1: exon4 was deleted

WT AATCACTGCCATCA**********GACGTGGTGATAAG
Mut AATCACTGCCATCA***Deletion***GACGTGGTGATAAG
Allele-2: exon4 was deleted

Genome sequence analysis of PCR products from parental (WT) and BRCA1 knockout (KO) HeLa cells, using sanger sequencing.