

BRCA1 Knockdown HeLa Cell Lysate, Heterozygous

Catalog No.: RM50066

Basic Information

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RM50066

Category

Cell Lysate

Parental Cell line

HeLa

Genotype

Knockdown

Gene Information

Gene Symbol

BRCA1

Species

Human

Gene ID

672

Swiss Prot

P38398

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

Contact

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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 multi-subunit 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 Knockdown HeLa Cell Lysate is engineered from HeLa cell line with Gene-Editing technology.

Allele-1:exon4 was deleted

Allele-2:WT

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 line and 1 vial knockout cell line

Shipping Conditions

Dry ice

Amount

1~5x10⁶ cells/vial

Storage

Stored in liquid nitrogen for a long time less than -130°C. Minimizing freeze-thaw cycles.

Protocol

Upon arrival, it should be maintained in DMEM medium with 10%(v/v) fetal bovine serum and 100U penicillin-streptomycin, at 37°C with 5% CO₂ condition.

1. Thaw the vial in 37°C water bath, and shake it to melt as soon as possible.
2. Transfer the cell suspension to a 15mL conical tube with pre-warmed 5mL complete medium and centrifuge 1000rpm for approximately 5 minutes at room temperature.
3. Remove and discard the supernatant.
4. Resuspend the cell pellet with 1mL pre-warmed complete medium and seed in 10cm dish.
5. Add 8-10mL of complete medium.
6. Incubate the culture at 37°C incubator with 5% CO₂.
7. A subcultivation ratio of 1:2-1:4 is recommended.

Sequencing data

WT CACTGCCATCA*****GACGTGGTGAT
Mut CACTGCCATCA***Deletion(323bp)***GACGTGGTGAT
Allele-1: exon4 was deleted

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

WT CACTGCCATCA*****GTGGTGATAAG
Mut CACTGCCATCA*****GTGGTGATAAG
Allele-2: WT