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# BRCA1 Knockdown HeLa Cell Line, Heterozygous

**Catalog No.: RM02720**

## Basic Information

**Catalog No.**
RM02720

**Category**
Cell Line

**Parental Cell line**
HeLa

**Genotype**
Knockdown

## Gene Information

**Gene Symbol**
BRCA1

**Species**
Human

**Gene ID**
672

**Swiss Prot**
P38398

**Synonyms**
BRCAI; 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 Line 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

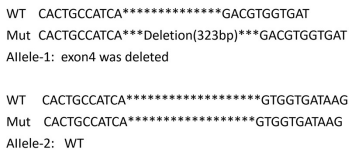
**Shipping Conditions**
Dry ice

**Amount**
1~5x10$^6$ cells/vial

**Storage**
Store at -20℃

**Protocol**
Upon arrival, it should be maintained in DMEM medium with 10%(v/v) fetal bovine serum and 100U penicillin-streptomycin, at 37℃ with 5% $CO_2$ condition.
1. Thaw the vial in 37℃ 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℃ incubator with 5% $CO_2$.
7. A subcultivation ratio of 1:2-1:4 is recommended.

## Sequencing data







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