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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

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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 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 Conditions
4℃

Amount
50μL, 2μg/μL.

Storage
Store at -20℃

Protocol
To be used as WB control. Lysate is supplied in 1× 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

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

WT     AATCACTGCCATCA**************GACGTGGTGATAAG
Mut    AATCACTGCCATCA***Deletion***GACGTGGTGATAAG
Allele-2：exon4 was deleted
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Genome sequence analysis of PCR products from parental (WT) and BRCA1 knockout (KO) HeLa cells, using sanger sequencing.