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AKT1 Knockout HeLa Cell Lysate, Homozygous

Catalog No.: RM01768

Basic Information

Catalog No.
RM01768

Category
Cell Lysate

Parental Cell line
HeLa

Genotype
Knockout

Gene Information

Species
Human

Gene ID
207

Swiss Prot
P31749

Synonyms
AKT; CWS6; PKB; PKB-ALPHA; PRKBA; RAC; RAC-ALPHA

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Background

The serine-threonine protein kinase encoded by the AKT1 gene is catalytically inactive in serum-starved primary and immortalized fibroblasts. AKT1 and the related AKT2 are activated by platelet-derived growth factor. The activation is rapid and specific, and it is abrogated by mutations in the pleckstrin homology domain of AKT1. It was shown that the activation occurs through phosphatidylinositol 3-kinase. In the developing nervous system AKT is a critical mediator of growth factor-induced neuronal survival. Survival factors can suppress apoptosis in a transcription-independent manner by activating the serine/threonine kinase AKT1, which then phosphorylates and inactivates components of the apoptotic machinery. Mutations in this gene have been associated with the Proteus syndrome. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jul 2011]

Product Information

Description
AKT1 Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing technology.
Allele-1:52bp deletion in exon4
Allele-2:52bp deletion in exon4
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
Lysate is stable for 12 months when stored at -20℃. Minimizing freeze-thaw cycles.

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    AACCGCCATCCAGA**************GGGCTCACCCAGTG
Mut   AACCGCCATCCAGA***Deletion***GGGCTCACCCAGTG
Allele-1：52bp deletion in exon4

WT    AACCGCCATCCAGA**************GGGCTCACCCAGTG
Mut   AACCGCCATCCAGA***Deletion***GGGCTCACCCAGTG
Allele-2：52bp deletion in exon4
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Genome sequence analysis of PCR products from parental (WT) and AKT1 knockout (KO) HeLa cells, using sanger sequencing.