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INPP5E Knockout 293T Cell Line, Homozygous

Catalog No.: RM02680

Basic Information

Catalog No.
RM02680

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

Background

The protein encoded by this gene is an inositol 1,4,5-trisphosphate (InsP3) 5-phosphatase. InsP3 5-phosphatases hydrolyze Ins(1,4,5)P3, which mobilizes intracellular calcium and acts as a second messenger mediating cell responses to various stimulation. Studies of the mouse counterpart suggest that this protein may hydrolyze phosphatidylinositol 3,4,5-trisphosphate and phosphatidylinositol 3,5-bisphosphate on the cytoplasmic Golgi membrane and thereby regulate Golgi-vesicular trafficking. Mutations in this gene cause Joubert syndrome; a clinically and genetically heterogenous group of disorders characterized by midbrain-hindbrain malformation and various associated ciliopathies that include retinal dystrophy, nephronophthisis, liver fibrosis and polydactyly. Alternative splicing results in multiple transcript variants encoding different isoforms.

Gene Information

Gene Symbol
INPP5E

Species
Human

Gene ID
56623

Swiss Prot
Q9NRR6

Synonyms
CPD4; CORS1; JBTS1; MORMS; PPI5PIV; pharbin; INPP5E

Product Information

Description
INPP5E Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.
Allele-1:113bp deletion in exon1
Allele-2:113bp deletion in exon1
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
Stored in liquid nitrogen for a long time less than -130℃. 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℃ 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.

Contact

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Sequencing data

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WT    CCCCACCCGATGCT**********GGAGCGAGCCCTGT
Mut   CCCCACCCGATGCT***Deletion***GGAGCGAGCCCTGT
Allele-1:   113bp deletion in exon1

WT    CCCCACCCGATGCT**********GGAGCGAGCCCTGT
Mut   CCCCACCCGATGCT***Deletion***GGAGCGAGCCCTGT
Allele-2:   113bp deletion in exon1
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Genome sequence analysis of PCR products from parental (WT) and INPP5E knockout (KO) 293T cells, using sanger sequencing.