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GPC3 Knockout 293T Cell Line, Homozygous

Catalog No.: RM02654

Basic Information

Catalog No.
RM02654

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

Background

Cell surface heparan sulfate proteoglycans are composed of a membrane-associated protein core substituted with a variable number of heparan sulfate chains. Members of the glypican-related integral membrane proteoglycan family (GRIPS) contain a core protein anchored to the cytoplasmic membrane via a glycosyl phosphatidylinositol linkage. These proteins may play a role in the control of cell division and growth regulation. The protein encoded by this gene can bind to and inhibit the dipeptidyl peptidase activity of CD26, and it can induce apoptosis in certain cell types. Deletion mutations in this gene are associated with Simpson-Golabi-Behmel syndrome, also known as Simpson dysmorphia syndrome. Alternative splicing results in multiple transcript variants.

Gene Information

Gene Symbol
GPC3

Species
Human

Gene ID
2719

Swiss Prot
P51654

Synonyms
SGB; DGSX; MXR7; SDYS; SGBS; OCI-5; SGBS1; GTR2-2; Glypican 3 (GPC3)

Product Information

Description
GPC3 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.
Allele-1:76bp deletion in exon1
Allele-2:76bp 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
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.

Contact

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Sequencing data

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WT   GCCGGGACCGTGCG**********GACGCCACCTGTC
Mut  GCCGGGACCGTGCG***Deletion***GACGCCACCTGTC
Allele-1:   76bp deletion in exon1

WT   GCCGGGACCGTGCG**********GACGCCACCTGTC
Mut  GCCGGGACCGTGCG***Deletion***GACGCCACCTGTC
Allele-2:   76bp deletion in exon1
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Genome sequence analysis of PCR products from parental (WT) and GPC3 knockout (KO) 293T cells, using sanger sequencing.