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APP Knockout 293T Cell Line, Homozygous

Catalog No.: RM01858

Basic Information

Catalog No.
RM01858

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

Gene Information

Gene Symbol
APP

Species
Human

Gene ID
351

Swiss Prot
P05067

Synonyms
AAA; ABETA; ABPP; AD1; APPI; CTFgamma; CVAP; PN-II; PN2

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Background

This gene encodes a cell surface receptor and transmembrane precursor protein that is cleaved by secretases to form a number of peptides. Some of these peptides are secreted and can bind to the acetyltransferase complex APBB1/TIP60 to promote transcriptional activation, while others form the protein basis of the amyloid plaques found in the brains of patients with Alzheimer disease. In addition, two of the peptides are antimicrobial peptides, having been shown to have bacteriocidal and antifungal activities. Mutations in this gene have been implicated in autosomal dominant Alzheimer disease and cerebroarterial amyloidosis (cerebral amyloid angiopathy). Multiple transcript variants encoding several different isoforms have been found for this gene. [provided by RefSeq, Aug 2014]

Product Information

Description
APP Knockout 293T Cell Line is engineered from 293T cell line with Gene-Editing Technology.
Allele-1:exon2 was deleted
Allele-2:94bp deletion in exon2
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

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WT     CACCTGTACCTTACA**********GCCGGCCGTGGGGCT
Mut    CACCTGTACCTTACA***Deletion***GCCGGCCGTGGGGCT
Allele-1:    exon2 was deleted

WT     TACA*********CC*GG*********CC*GC*********TGGT
Mut    TACA*Deletion*CC*GG*Deletion*CC*GC*insertion*TGGT
Allele-2:    94bp deletion in exon2
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Genome sequence analysis of PCR products from parental (WT) and APP knockout (KO) 293T cells, using sanger sequencing.