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ATG5 Knockout 293T Cell Line, Homozygous

Catalog No.: RM02143

Basic Information

Catalog No.
RM02143

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

Gene Information

Gene Symbol
ATG5

Species
Human

Gene ID
9474

Swiss Prot
Q9H1Y0

Synonyms
APG5; APG5-LIKE; APG5L; ASP; hAPG5

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Background

The protein encoded by this gene, in combination with autophagy protein 12, functions as an E1-like activating enzyme in a ubiquitin-like conjugating system. The encoded protein is involved in several cellular processes, including autophagic vesicle formation, mitochondrial quality control after oxidative damage, negative regulation of the innate antiviral immune response, lymphocyte development and proliferation, MHC II antigen presentation, adipocyte differentiation, and apoptosis. Several transcript variants encoding different protein isoforms have been found for this gene. [provided by RefSeq, Sep 2015]

Product Information

Description
ATG5 Knockout 293T Cell Line is engineered from 293T cell line with Gene-Editing Technology.
Allele-1:exon2 was deleted
Allele-2:exon2 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 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    AGCCTAGGCACGTA**************TCCCATTTGTGATA
Mut   AGCCTAGGCACGTA***Deletion***TCCCATTTGTGATA
Allele-1: exon2 was deleted

WT    CCTAGGCACGTAAC**************ATTTGTGATACATA
Mut   CCTAGGCACGTAAC***Deletion***ATTTGTGATACATA
Allele-2: exon2 was deleted
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Genome sequence analysis of PCR products from parental (WT) and ATG5 knockout (KO) 293T cells, using sanger sequencing.