

EIF4G2 Knockdown A549 Cell Line, Heterozygous

Catalog No.: RM02757

Basic Information

Catalog No.

RM02757

Category

Cell Line

Parental Cell line

A549

Genotype

Knockdown

Gene Information

Gene Symbol

EIF4G2

Species

Human

Gene ID

1982

Swiss Prot

P78344

Synonyms

P97; AAG1; DAP5; NAT1; EIF4G2/p97

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Background

Translation initiation is mediated by specific recognition of the cap structure by eukaryotic translation initiation factor 4F (eIF4F), which is a cap binding protein complex that consists of three subunits: eIF4A, eIF4E and eIF4G. The protein encoded by this gene shares similarity with the C-terminal region of eIF4G that contains the binding sites for eIF4A and eIF3; eIF4G, in addition, contains a binding site for eIF4E at the N-terminus. Unlike eIF4G, which supports cap-dependent and independent translation, this gene product functions as a general repressor of translation by forming translationally inactive complexes. In vitro and in vivo studies indicate that translation of this mRNA initiates exclusively at a non-AUG (GUG) codon. Alternatively spliced transcript variants encoding different isoforms of this gene have been described.

Product Information

Description

EIF4G2 Knockdown A549 cell line is engineered from A549 cell line with Gene-Editing Technology.

Allele-1:exon1 was deleted

Allele-2:WT

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

1~5x10⁶ cells/vial.

Storage

Stored in liquid nitrogen for a long time less than -130°C. 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°C with 5% CO₂ condition.

1. Thaw the vial in 37°C 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°C incubator with 5% CO₂.
7. A subcultivation ratio of 1:2-1:4 is recommended.

Sequencing data

WT CGTTGTCAAGCC *****AATGGGCTGCAATT
Mut CGTTGTCAAGCC**Deletion**AATGGGCTGCAATT
Allele-1: exon1 was deleted

Genome sequence analysis of PCR products from parental (WT) and EIF4G2 knockdown (KD) A549 cells, using sanger sequencing.

WT TTCGTTGTCAAGCC*****AATGGGCTGCAATT
Mut TTCGTTGTCAAGCC*****AATGGGCTGCAATT
Allele-2: WT