

EIF4E Knockdown 293T Cell Line, Heterozygous

Catalog No.: RM01819

Basic Information

Catalog No.

RM01819

Category

Cell Line

Parental Cell line

293T

Genotype

Knockdown

Gene Information

Gene Symbol

EIF4E

Species

Human

Gene ID

1977

Swiss Prot

P06730

SynonymsAUTS19; CBP; EIF4E1; EIF4EL1; EIF4F;
eIF-4E

Contact

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Background

The protein encoded by this gene is a component of the eukaryotic translation initiation factor 4F complex, which recognizes the 7-methylguanosine cap structure at the 5' end of messenger RNAs. The encoded protein aids in translation initiation by recruiting ribosomes to the 5'-cap structure. Association of this protein with the 4F complex is the rate-limiting step in translation initiation. This gene acts as a proto-oncogene, and its expression and activation is associated with transformation and tumorigenesis. Several pseudogenes of this gene are found on other chromosomes. Alternative splicing results in multiple transcript variants.

Product Information

Description

EIF4E Knockdown 293T cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:WT

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

1~5x10⁶ 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 AGAATATTGCTGTC*****CAGAACAGGTAAGC
Mut AGAATATTGCTGTC*****CAGAACAGGTAAGC
Allele-1: WT

WT ATCAGCATATCAGT*****ACCTAGGTTTCTG
Mut ATCAGCATATCAGT***Deletion***ACCTAGGTTTCTG
Allele-2: exon2 was deleted

Genome sequence analysis of PCR products from parental (WT) and EIF4E Knockdown (KD) 293T cells, using sanger sequencing.