

# EIF4EBP1 Knockdown HeLa Cell Line, Heterozygous

Catalog No.: RM01877

## Basic Information

**Catalog No.**

RM01877

**Category**

Cell Line

**Parental Cell line**

HeLa

**Genotype**

Knockdown

## Gene Information

**Gene Symbol**

EIF4EBP1

**Species**

Human

**Gene ID**

1978


**Swiss Prot**

Q13541

**Synonyms**

4E-BP1; 4EBP1; BP-1; PHAS-I

## Contact

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## Background

This gene encodes one member of a family of translation repressor proteins. The protein directly interacts with eukaryotic translation initiation factor 4E (eIF4E), which is a limiting component of the multisubunit complex that recruits 40S ribosomal subunits to the 5' end of mRNAs. Interaction of this protein with eIF4E inhibits complex assembly and represses translation. This protein is phosphorylated in response to various signals including UV irradiation and insulin signaling, resulting in its dissociation from eIF4E and activation of mRNA translation. [provided by RefSeq, Jul 2008]

## Product Information

**Description**

EIF4EBP1 Knockdown HeLa Cell Line is engineered from HeLa cell line with Gene-Editing Technology.

Allele-1:116bp deletion in exon2

Allele-2:117bp 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<sup>6</sup> 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% CO<sub>2</sub> 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% CO<sub>2</sub>.
7. A subcultivation ratio of 1:2-1:4 is recommended.

## Sequencing data

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WT GGAAATTCCTGATG\*\*\*\*\*CAATAGCCCAGAAG  
Mut GGAAATTCCTGATG\*\*\*Deletion\*\*\*CAATAGCCCAGAAG  
Allele-1: 116bp deletion in exon2  
WT CGGAAATTCCTGAT\*\*\*\*\*CAATAGCCCAGAAG  
Mut CGGAAATTCCTGAT\*\*\*Deletion\*\*\*CAATAGCCCAGAAG  
Allele-2: 117bp deletion in exon2

Genome sequence analysis of PCR products from parental (WT) and EIF4EBP1 Knockdown (KD) HeLa cells, using sanger sequencing.