

KEAP1 Knockout 293T Cell Line, Homozygous

Catalog No.: RM02203

Basic Information

Catalog No.

RM02203

Category

Cell Line

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

KEAP1

Species

Human

Gene ID

9817

Swiss Prot

Q14145

Synonyms

INrf2; KLHL19

Contact

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Background

This gene encodes a protein containing KELCH-1 like domains, as well as a BTB/POZ domain. Kelch-like ECH-associated protein 1 interacts with NF-E2-related factor 2 in a redox-sensitive manner and the dissociation of the proteins in the cytoplasm is followed by transportation of NF-E2-related factor 2 to the nucleus. This interaction results in the expression of the catalytic subunit of gamma-glutamylcysteine synthetase. Two alternatively spliced transcript variants encoding the same isoform have been found for this gene. [provided by RefSeq, Jul 2008]

Product Information

Description

KEAP1 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:14bp deletion and 5bp deletion in exon1

Allele-2:169bp deletion in exon1

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 CCTTTGGCATCATG*****CAGCCAGCAAGCTGT***TGTTCACCAACGGGCTGCGGAGCAGGGGCATGG
Mut: CCTTTGGCATCATG***Deletion***CAGCCAGCAAGCTGT***TGTTCACCAACGGG - - - - -GGAGCAGGGGCATGG
Allele-1: 14bp deletion and 5bp deletion in exon1
WT CATACCAAGCAGGC*****ATGGAGGTGGTGTCTC
Mut: CATACCAAGCAGGC***Deletion***ATGGAGGTGGTGTCTC
Allele-2: 169bp deletion in exon1

Genome sequence analysis of PCR products from parental (WT) and KEAP1 knockout (KO) 293T cells, using sanger sequencing.