

TDO2 Knockdown 293T Cell Line, Heterozygous

Catalog No.: RM02135

Basic Information

Catalog No.

RM02135

Category

Cell Line

Parental Cell line

293T

Genotype

Knockdown

Gene Information

Gene Symbol

TDO2

Species

Human

Gene ID

6999

Swiss Prot

P48775

Synonyms

TDO; TO; TPH2; TRPO

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Background

This gene encodes a heme enzyme that plays a critical role in tryptophan metabolism by catalyzing the first and rate-limiting step of the kynurenine pathway. Increased activity of the encoded protein and subsequent kynurenine production may also play a role in cancer through the suppression of antitumor immune responses, and single nucleotide polymorphisms in this gene may be associated with autism. [provided by RefSeq, Feb 2012]

Product Information

Description

TDO2 Knockdown 293T Cell Line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:62bp deletion in exon2

Allele-2:63bp 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

1~5x10⁶ 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 AAAAACTCCCGTA*****CTATGGGA ACTACC
Mut AAAAACTCCCGTA***Deletion***TATGGGA ACTACC
Allele-1: 62bp deletion in exon2
WT AAAAACTCCCGTA*****TATGGGA ACTACCT
Mut AAAAACTCCCGTA***Deletion***TATGGGA ACTACCT
Allele-2: 63bp deletion in exon2

Genome sequence analysis of PCR products from parental (WT) and TDO2 Knockdown (KD) 293T cells, using sanger sequencing.