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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
1~5x10^6 cells/vial

Storage
Store at -20℃

Protocol
Upon arrival, it should be maintained in DMEM medium with 10%(v/v) fetal bovine serum and 100U penicillin-streptomycin, at 37℃ with 5% CO_2 condition.
1. Thaw the vial in 37℃ 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℃ incubator with 5% CO_2.
7. A subcultivation ratio of 1:2-1:4 is recommended.

Sequencing data

WT AAAAACTCCCCGTA**********CTATGGGAACTACC
Mut AAAAACTCCCCGTA***Deletion***TTATGGGAACTACC
Allele-1: 62bp deletion in exon2

WT AAAAACTCCCCGTA**********TATGGGAACTACCT
Mut AAAAACTCCCCGTA***Deletion***TATGGGAACTACCT
Allele-2: 63bp deletion in exon2

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