ACE2 Knockout 293T Cell Line, Homozygous

Catalog No.: RM02231



Basic Information

Catalog No. RM02231

Category Cell Line

Parental Cell line 293T

Genotype Knockout

Gene Information

Gene Symbol ACE2

Species Human

Gene ID 59272

Swiss Prot Q9BYF1

Synonyms ACEH

Contact

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Background

The protein encoded by this gene belongs to the angiotensin-converting enzyme family of dipeptidyl carboxydipeptidases and has considerable homology to human angiotensin 1 converting enzyme. This secreted protein catalyzes the cleavage of angiotensin I into angiotensin 1-9, and angiotensin II into the vasodilator angiotensin 1-7. The organ- and cell-specific expression of this gene suggests that it may play a role in the regulation of cardiovascular and renal function, as well as fertility. In addition, the encoded protein is a functional receptor for the spike glycoprotein of the human coronaviruses SARS and HCoV-NL63. [provided by RefSeq, Jul 2008]

Product Information

Description

ACE2 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology. Allele-1:exon3 was deleted

Allele-2:exon3 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.
- 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.
 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_2 .
- 7. A subcultivation ratio of 1:2-1:4 is recommended.

Sequencing data

WT TACTTTGTGCTAGT*************GGTTTATTTCTCT Mut TACTTTGTGCTAGT***Deletion***GGTTTATTTCTCT Allele-1: exon3 was deleted

WT TACTTTGTGCTAGT***********GGTTTATTTTCTCT Mut TACTTTGTGCTAGT***Deletion***GGTTTATTTTCTCT Allele-2: exon3 was deleted Genome sequence analysis of PCR products from parental (WT) and ACE2 knockout (KO) 293T cells, using sanger sequencing.