

GHRH Knockout 293T Cell Line, Homozygous

Catalog No.: RM02097

Basic Information

Catalog No.

RM02097

Category

Cell Line

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

GHRH

Species

Human

Gene ID

2691

Swiss Prot

P01286

Synonyms

GHRF; GRF; INN

Contact

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Background

This gene encodes a member of the glucagon family of proteins. The encoded preproprotein is produced in the hypothalamus and cleaved to generate the mature factor, known as somatoliberin, which acts to stimulate growth hormone release from the pituitary gland. Variant receptors for somatoliberin have been found in several types of tumors, and antagonists of these receptors can inhibit the growth of the tumors. Defects in this gene are a cause of dwarfism, while hypersecretion of the encoded protein is a cause of gigantism. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed. [provided by RefSeq, Jan 2016]

Product Information

Description

GHRH Knockout 293T Cell Line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:59bp deletion in exon2

Allele-2:65bp 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 TGGCATCTTCACCA*****AGCAGGCAGCAGGG
Mut TGGCATCTTCACCA***Deletion***AGCAGGCAGCAGGG
Allele-1: 59bp deletion in exon2
WT TGCAGATGCCATCT*****AGCAGGCAGCAGGG
Mut TGCAGATGCCATCT***Deletion***AGCAGGCAGCAGGG
Allele-2: 65bp deletion in exon2

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