# **GNAI3 Knockout HeLa Cell Line, Homozygous**

Catalog No.: RM02240



### **Basic Information**

Catalog No. RM02240

Category Cell Line

Parental Cell line HeLa

# Genotype

Knockout

# Gene Information

Gene Symbol GNAI3

Species Human

Gene ID 2773

Swiss Prot P08754

Synonyms 87U6; ARCND1

## Contact

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# Background

Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling pathways. G proteins are composed of 3 units: alpha, beta and gamma. This gene encodes an alpha subunit and belongs to the G-alpha family. Mutation in this gene, resulting in a gly40-to-arg substitution, is associated with auriculocondylar syndrome, and shown to affect downstream targets in the G proteincoupled endothelin receptor pathway. [provided by RefSeq, Jun 2012]

# **Product Information**

#### Description

GNAI3 Knockout cell line is engineered from HeLa cell line with Gene-Editing Technology. Allele-1:70bp deletion in exon1

Allele-2:71bp 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 1~5x10<sup>6</sup> 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  $37^{\circ}$ C with 5% CO<sub>2</sub> 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 TCAGCCTGCCGAGC\*\*\*\*Deletion\*\*\*GGGAGGACGGGGAA Mut TCAGCCTGCCGAGC\*\*\*Deletion\*\*\*GGGAGGACGGGGAA Allele-1: 70bp deletion in exon1

WT AGCCTGCCGAGCCG\*\*\*\*\*\*\*\*\*GGAGGACGGGGAAA Mut AGCCTGCCGACCG\*\*\*Deletion\*\*\*GGAGGACGGGGAAA Allele-2: 71bp deletion in exon1 Genome sequence analysis of PCR products from parental (WT) and GNAI3 knockout (KO) HeLa cells, using sanger sequencing.