

CHRM1 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM01876

Basic Information

Catalog No.

RM01876

Category

Cell Line

Parental Cell line

HeLa

Genotype

Knockout

Gene Information

Gene Symbol

CHRM1

Species

Human

Gene ID

1128

Swiss Prot

P11229

Synonyms

HM1; M1; M1R

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Background

The muscarinic cholinergic receptors belong to a larger family of G protein-coupled receptors. The functional diversity of these receptors is defined by the binding of acetylcholine and includes cellular responses such as adenylate cyclase inhibition, phosphoinositide degeneration, and potassium channel mediation. Muscarinic receptors influence many effects of acetylcholine in the central and peripheral nervous system. The muscarinic cholinergic receptor 1 is involved in mediation of vagally-induced bronchoconstriction and in the acid secretion of the gastrointestinal tract. The gene encoding this receptor is localized to 11q13. [provided by RefSeq, Jul 2008]

Product Information

Description

CHRM1 Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing Technology.

Allele-1:137bp deletion in exon1

Allele-2:2bp deletion and 1bp insertion 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

1~5x10⁶ 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 CGGGCCTCCTGTCG*****TACCACGTACCTGC
Mut CGGGCCTCCTGTCG***Deletion***TACCACGTACCTGC
Allele-1: 137bp deletion in exon1

WT TGTCG CTAGC***CTCTA*****CCACGTACCTGC
Mut TGTCGCTAGC***CTCTA**Deletion**CCACGTACCTGC
Allele-2: 2bp deletion and 1bp Insertion in exon1

Genome sequence analysis of PCR products from parental (WT) and CHRM1 knockout (KO) HeLa cells, using sanger sequencing.