

KLRD1 Knockout 293T Cell Line, Homozygous

Catalog No.: RM02709

Basic Information

Catalog No.

RM02709

Category

Cell Line

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

KLRD1

Species

Human

Gene ID

3824

Swiss Prot

Q13241

Synonyms

CD94; KLRD1

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Background

Natural killer (NK) cells are a distinct lineage of lymphocytes that mediate cytotoxic activity and secrete cytokines upon immune stimulation. Several genes of the C-type lectin superfamily, including members of the NKG2 family, are expressed by NK cells and may be involved in the regulation of NK cell function. KLRD1 (CD94) is an antigen preferentially expressed on NK cells and is classified as a type II membrane protein because it has an external C terminus. Several transcript variants encoding different isoforms have been found for this gene.

Product Information

Description

KLRD1 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:56bp deletion in exon1

Allele-2:77bp 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

1~5x10⁶ 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 TGCCAAGAAAATG*****AAAGTCGGCATCT
Mut TGCCAAGAAAATG***Deletion***AAAGTCGGCATCT
Allele-1: 56bp deletion in exon4

Genome sequence analysis of PCR products from parental (WT) and KLRD1 knockout (KO) 293T cells, using sanger sequencing.

WT GACTCTGACTGCTG*****GTCGGCATCTCTGT
Mut GACTCTGACTGCTG***Deletion***GTCGGCATCTCTGT
Allele-2: 77bp deletion in exon4