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IL7R Knockout HeLa Cell Line, Homozygous

Catalog No.: RM50053

Basic Information

Catalog No.
RM50053

Category
Cell Line

Parental Cell line
HeLa

Genotype
Knockout

Background

The protein encoded by this gene is a receptor for interleukin 7 (IL7). The function of this receptor requires the interleukin 2 receptor, gamma chain (IL2RG), which is a common gamma chain shared by the receptors of various cytokines, including interleukins 2, 4, 7, 9, and 15. This protein has been shown to play a critical role in V(D)J recombination during lymphocyte development. Defects in this gene may be associated with severe combined immunodeficiency (SCID). Alternatively spliced transcript variants have been found.

Gene Information

Gene Symbol
IL7R

Species
Human

Gene ID
3575

Swiss Prot
P16871

Synonyms
ILRA; CD127; IL7RA; CDW127; IMD104; sIL-7R; lnc-IL7R; IL7Ralpha; IL-7Ralpha; IL-7R-alpha; CD127/IL7R

Product Information

Description
IL7R Knockout cell line is engineered from HeLa cell line with Gene-Editing Technology.
Allele-1:11bp deletion in exon2
Allele-2:2bp 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
1~5x10^6 cells/vial.

Storage
Stored in liquid nitrogen for a long time less than -130℃. 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℃ with 5% CO_2 condition.
1. Thaw the vial in 37℃ 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℃ incubator with 5% CO_2.
7. A subcultivation ratio of 1:2-1:4 is recommended.

Contact

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Sequencing data

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WT    TTCTCATGCTATAG**********TGAATGGATCGCAG
Mut   TTCTCATGCTATAG***Deletion***TGAATGGATCGCAG
Allele-1:    11bp deletion in exon2

WT    CTCATGCTATAGCC**********TTGGAAGTGAATGG
Mut   CTCATGCTATAGCC***Deletion***TTGGAAGTGAATGG
Allele-2:    2bp deletion in exon2
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Genome sequence analysis of PCR products from parental (WT) and IL7R knockout (KO) HeLa cells, using sanger sequencing.