

# IL7R Knockout HeLa Cell Line, Homozygous

**Catalog No.:** RM50053

## Basic Information

**Catalog No.**

RM50053

**Category**

Cell Line

**Parental Cell line**

HeLa

**Genotype**

Knockout

## Gene Information

**Gene Symbol**

IL7R

**Species**

Human

**Gene ID**

3575

**Swiss Prot**

P16871

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

## Contact

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## 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.

## 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<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°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.
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% CO<sub>2</sub>.
7. A subcultivation ratio of 1:2-1:4 is recommended.



## Sequencing data

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

Genome sequence analysis of PCR products from parental (WT) and IL7R knockout (KO) HeLa cells, using sanger sequencing.

WT CTCATGCTATAGCC\*\*\*\*\*TTGGAAGTGAATGG  
Mut CTCATGCTATAGCC\*\*\*Deletion\*\*\*TTGGAAGTGAATGG  
Allele-2: 2bp deletion in exon2