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IL6R Knockout HCT116 Cell Line, Homozygous

Catalog No.: RM01899

Basic Information

Catalog No.

RM01899

Category

Cell Line

Parental Cell line

HCT116

Genotype

Knockout

Gene Information

Gene Symbol

IL6R

Species

Human

Gene ID

3570

Swiss Prot

P08887

Synonyms

CD126; IL-6R-1; IL-6RA; IL6Q; IL6RA; IL6RQ; gp80

Contact

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Background

This gene encodes a subunit of the interleukin 6 (IL6) receptor complex. Interleukin 6 is a potent pleiotropic cytokine that regulates cell growth and differentiation and plays an important role in the immune response. The IL6 receptor is a protein complex consisting of this protein and interleukin 6 signal transducer (IL6ST/GP130/IL6-beta), a receptor subunit also shared by many other cytokines. Dysregulated production of IL6 and this receptor are implicated in the pathogenesis of many diseases, such as multiple myeloma, autoimmune diseases and prostate cancer. Alternatively spliced transcript variants encoding distinct isoforms have been reported. A pseudogene of this gene is found on chromosome 9.[provided by RefSeq, May 2011]

Product Information

Description

IL6R Knockout HCT116 Cell Line is engineered from HCT116 cell line with Gene-Editing Technology.

Allele-1:151bp deletion in exon2

Allele-2:151bp 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

 ${\bf 1}$ vial parental cell line and ${\bf 1}$ vial knockout cell line

Shipping Conditions

Amount

Dry ice

1~5x10⁶ cells/vial

Storage

Stored in liquid nitrogen for a long time less than -130°C. Minimizing freeze-thaw cycles.

Protoco

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% 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 GACTCTGACCTGCC**********************GGCCGGCCGCCCAG
Mut GACTCTGACCTGCC***Deletion****GGCCGGCCGCCCAG
Allele-1: 151bp deletion in exon2

WT GACTCTGACCTGCC************GGCCGGCCGCCCAG
Mut GACTCTGACCTGCC***Deletion***GGCCGGCCGCCCAG

Allele-2: 151bp deletion in exon2

Genome sequence analysis of PCR products from parental (WT) and IL6R knockout (KO) HCT116 cells, using sanger sequencing.