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IL12A Knockout 293T Cell Line, Homozygous

Catalog No.: RM02535

Basic Information

Catalog No.
RM02535

Category
Cell Line

Parental Cell line
293T

Genotype
Knockout

Background

This gene encodes a subunit of a cytokine that acts on T and natural killer cells, and has a broad array of biological activities. The cytokine is a disulfide-linked heterodimer composed of the 35-kD subunit encoded by this gene, and a 40-kD subunit that is a member of the cytokine receptor family. This cytokine is required for the T-cell-independent induction of interferon (IFN)-gamma, and is important for the differentiation of both Th1 and Th2 cells. The responses of lymphocytes to this cytokine are mediated by the activator of transcription protein STAT4. Nitric oxide synthase 2A (NOS2A/NOS2) is found to be required for the signaling process of this cytokine in innate immunity. [provided by RefSeq, Jul 2008]

Gene Information

Gene Symbol
IL12A

Species
Human

Gene ID
3592

Swiss Prot
P29459

Synonyms
CLMF; IL-12A; NFSK; NKSF1; P35

Product Information

Description
IL12A Knockout 293T Cell Line is engineered from 293T cell line with Gene-Editing technology.
Allele-1:49bp deletion in exon1
Allele-2:49bp 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
1~5x10^6 cells/vial

Storage
Store at -20℃

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    GTCTGCATCCAGCG*************CGGAGGGGCGGCTG
Mut   GTCTGCATCCAGCG***Deletion***CGGAGGGGCGGCTG
Allele-1:    49bp deletion in exon1

WT    GTCTGCATCCAGCG*************CGGAGGGGCGGCTG
Mut   GTCTGCATCCAGCG***Deletion***CGGAGGGGCGGCTG
Allele-2:    49bp deletion in exon1
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Genome sequence analysis of PCR products from parental (WT) and IL12A knockout (KO) 293T cells, using sanger sequencing.