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JAK1 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM01889

Basic Information

Catalog No.
RM01889

Category
Cell Line

Parental Cell line
HeLa

Genotype
Knockout

Background

This gene encodes a membrane protein that is a member of a class of protein-tyrosine kinases (PTK) characterized by the presence of a second phosphotransferase-related domain immediately N-terminal to the PTK domain. The encoded kinase phosphorylates STAT proteins (signal transducers and activators of transcription) and plays a key role in interferon-alpha/beta and interferon-gamma signal transduction. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2016]

Gene Information

Gene Symbol
JAK1

Species
Human

Gene ID
3716

Swiss Prot
P23458

Synonyms
JAK1A; JAK1B; JTK3

Product Information

Description
JAK1 Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing Technology.
Allele-1:73bp deletion in exon4
Allele-2:74bp deletion in exon4
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    CATGGAACCAACGA**************GCAACCCCTCTCCT
Mut   CATGGAACCAACGA***Deletion***GCAACCCCTCTCCT
Allele-1：73bp deletion in exon4

WT    GCATGGAACCAACG**************GCAACCCCTCTCCT
Mut   GCATGGAACCAACG***Deletion***GCAACCCCTCTCCT
Allele-2：74bp deletion in exon4
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Genome sequence analysis of PCR products from parental (WT) and JAK1 knockout (KO) HeLa cells, using sanger sequencing.