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TLR5 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM50095

Basic Information

Catalog No.
RM50095

Category
Cell Line

Parental Cell line
HeLa

Genotype
Knockout

Background

This gene encodes a member of the toll-like receptor (TLR) family, which plays a fundamental role in pathogen recognition and activation of innate immune responses. These receptors recognize distinct pathogen-associated molecular patterns that are expressed on infectious agents. The protein encoded by this gene recognizes bacterial flagellin, the principal component of bacterial flagella and a virulence factor. The activation of this receptor mobilizes the nuclear factor NF-kappaB, which in turn activates a host of inflammatory-related target genes. Mutations in this gene have been associated with both resistance and susceptibility to systemic lupus erythematosus, and susceptibility to Legionnaire disease.

Gene Information

Gene Symbol
TLR5

Species
Human

Gene ID
7100

Swiss Prot
O60602

Synonyms
SLE1; TIL3; SLEB1; MELIOS; TLR5

Product Information

Description
TLR5 Knockout cell line is engineered from HeLa cell line with Gene-Editing Technology.
Allele-1:353bp deletion in exon1
Allele-2:353bp 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
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

400-999-6126
cn.market@abclonal.com.cn
www.abclonal.com.cn

Sequencing data

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WT    CCCCCTTGACTATT**********AGCTAATAGCTTGT
Mut   CCCCCTTGACTATT***Deletion***AGCTAATAGCTTGT
Allele-1:    353bp deletion in exon1

WT    CCCCCTTGACTATT**********AGCTAATAGCTTGT
Mut   CCCCCTTGACTATT***Deletion***AGCTAATAGCTTGT
Allele-2:    353bp deletion in exon1
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Genome sequence analysis of PCR products from parental (WT) and TLR5 knockout (KO) HeLa cells, using sanger sequencing.