TLR5 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM50095



Basic Information

Catalog No. RM50095

Category Cell Line

Parental Cell line HeLa

Genotype Knockout

Gene Information

Gene Symbol TLR5

Species Human

Gene ID 7100

7100

Swiss Prot 060602

060602

Synonyms SLE1; TIL3; SLEB1; MELIOS; TLR5

Contact

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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.

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 1~5x10⁶ 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% CO₂ condition.

- 1. Thaw the vial in 37°C water bath ,and shake it to melt as soon as possible.
- 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% $\mbox{CO}_2.$
- 7. A subcultivation ratio of 1:2-1:4 is recommended.

Sequencing data

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

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