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PAX5 Knockdown A549 Cell Line, Heterozygous

Catalog No.: RM02650

Basic Information

Catalog No.
RM02650

Category
Cell Line

Parental Cell line
A549

Genotype
Knockdown

Gene Information

Gene Symbol
PAX5

Species
Human

Gene ID
5079

Swiss Prot
Q02548

Synonyms
ALL3; BSAP

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Background

This gene encodes a member of the paired box (PAX) family of transcription factors. The central feature of this gene family is a novel, highly conserved DNA-binding motif, known as the paired box. Paired box transcription factors are important regulators in early development, and alterations in the expression of their genes are thought to contribute to neoplastic transformation. This gene encodes the B-cell lineage specific activator protein that is expressed at early, but not late stages of B-cell differentiation. Its expression has also been detected in developing CNS and testis and so the encoded protein may also play a role in neural development and spermatogenesis. This gene is located at 9p13, which is involved in t(9;14)(p13;q32) translocations recurring in small lymphocytic lymphomas of the plasmacytoid subtype, and in derived large-cell lymphomas. This translocation brings the potent E-mu enhancer of the IgH gene into close proximity of the PAX5 promoter, suggesting that the deregulation of transcription of this gene contributes to the pathogenesis of these lymphomas. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2013]

Product Information

Description
PAX5 Knockdown A549 Cell Line is engineered from A549 cell line with Gene-Editing technology.
Allele-1:exon4 was deleted
Allele-2:WT
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.

Sequencing data

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WT    TCTCTTCTCCTTCC**********GCTGAACCTGGTAA
Mut   TCTCTTCTCCTTCC***Deletion***GCTGAACCTGGTAA
Allele-1:    exon4 was deleted

WT    TCTCTTCTCCTTCC**********GCTGAACCTGGTAA
Mut   TCTCTTCTCCTTCC**********GCTGAACCTGGTAA
Allele-2:    WT
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Genome sequence analysis of PCR products from parental (WT) and PAX5 Knockdown (KD) A549 cells, using sanger sequencing.