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S100B Knockout HeLa Cell Line, Homozygous

Catalog No.: RM02744

Basic Information

Catalog No.
RM02744

Category
Cell Line

Parental Cell line
HeLa

Genotype
Knockout

Gene Information

Gene Symbol
S100B

Species
Human

Gene ID
6285

Swiss Prot
P04271

Synonyms
NEF; S100; S100-B; S100beta; S100B

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Background

The protein encoded by this gene is a member of the S100 family of proteins containing 2 EF-hand calcium-binding motifs. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. S100 genes include at least 13 members which are located as a cluster on chromosome 1q21; however, this gene is located at 21q22.3. This protein may function in Neurite extension, proliferation of melanoma cells, stimulation of Ca2+ fluxes, inhibition of PKC-mediated phosphorylation, astrocytosis and axonal proliferation, and inhibition of microtubule assembly. Chromosomal rearrangements and altered expression of this gene have been implicated in several neurological, neoplastic, and other types of diseases, including Alzheimer's disease, Down's syndrome, epilepsy, amyotrophic lateral sclerosis, melanoma, and type I diabetes.

Product Information

Description
S100B Knockout cell line is engineered from HeLa cell line with Gene-Editing Technology.
Allele-1:97bp deletion in exon1
Allele-2:97bp 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.

Sequencing data

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WT    GCAACTTTCCTTTG**************TGAAGGAGCTCATC
Mut   GCAACTTTCCTTTG***Deletion***TGAAGGAGCTCATC
Allele-1:    97bp deletion in exon1

WT    GCAACTTTCCTTTG**************TGAAGGAGCTCATC
Mut   GCAACTTTCCTTTG***Deletion***TGAAGGAGCTCATC
Allele-2:    97bp deletion in exon1
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Genome sequence analysis of PCR products from parental (WT) and S100B knockout (KO) HeLa cells, using sanger sequencing.

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