

BDNF Knockdown HeLa Cell Line, Heterozygous

Catalog No.: RM01833

Basic Information

Catalog No.

RM01833

Category

Cell Line

Parental Cell line

HeLa

Genotype

Knockdown

Gene Information

Gene Symbol

BDNF

Species

Human

Gene ID

627

Swiss Prot

P23560

Synonyms

ANON2; BULN2

Contact

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Background

This gene encodes a member of the nerve growth factor family of proteins. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate the mature protein. Binding of this protein to its cognate receptor promotes neuronal survival in the adult brain. Expression of this gene is reduced in Alzheimer's, Parkinson's, and Huntington's disease patients. This gene may play a role in the regulation of the stress response and in the biology of mood disorders.

Product Information

Description

BDNF Knockdown HeLa cell line is engineered from HeLa cell line with Gene-Editing Technology.

Allele-1:179bp deletion in exon1

Allele-2:161bp 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.
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°C incubator with 5% CO₂.
7. A subcultivation ratio of 1:2-1:4 is recommended.

Sequencing data

WT GGTGGCTTGGCCTA*****TGATGCTCAGTAGT
Mut GGTGGCTTGGCCTA***Deletion***TGATGCTCAGTAGT
Allele-1: 179bp deletion in exon1
WT CTACCCAGGTGTGC*****TCCAGGGTGATGCT
Mut CTACCCAGGTGTGC***Deletion***TCCAGGGTGATGCT
Allele-2: 161bp deletion in exon1

Genome sequence analysis of PCR products from parental (WT) and BDNF Knockdown (KD) HeLa cells, using sanger sequencing.