

ZIP14 Knockout HeLa Cell Line, Homozygous

Catalog No.: RM50071

Basic Information

Catalog No.

RM50071

Category

Cell Line

Parental Cell line

HeLa

Genotype

Knockout

Gene Information

Gene Symbol

ZIP14

Species

Human

Gene ID

23516

Swiss Prot

Q15043

Synonyms

HCIN; NET34; ZIP14; cig19; HMNDYT2;
LZT-Hs4

Contact

☎ | 400-999-6126

✉ | cn.market@abclonal.com.cn

🌐 | www.abclonal.com.cn

Background

This gene encodes a member of the the SLC39A family of divalent metal transporters that mediates the cellular uptake of manganese, zinc, iron, and cadmium. The encoded protein contains eight transmembrane domains, a histidine-rich motif, and a metalloprotease motif, and is expressed on the plasma membrane and the endocytic vesicle membrane. It is an important transporter of nontransferrin-bound iron and a critical regulator of manganese homeostasis. Naturally occurring mutations in this gene are associated with neurodegeneration with brain iron accumulation and early-onset parkinsonism-dystonia with hypermanganesemia.

Product Information

Description

ZIP14 Knockout cell line is engineered from HeLa cell line with Gene-Editing Technology.

Allele-1:19bp deletion in exon1

Allele-2:100bp 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 CACGCTTCATC*****AGCGCTGCCTC
Mut CACGCTTCATC***Deletion(19bp)***AGCGCTGCCTC
Allele-1: 19bp deletion in exon1

Genome sequence analysis of PCR products from parental (WT) and ZIP14 knockout (KO) HeLa cells, using sanger sequencing.

WT CATCCCTGGGT*****ACCTGGATGTG
Mut CATCCCTGGGT***Deletion(100bp)***ACCTGGATGTG
Allele-2: 100bp deletion in exon1