

# 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](mailto:cn.market@abclonal.com.cn)

🌐 | [www.abclonal.com.cn](http://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

1~5x10<sup>6</sup> 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% CO<sub>2</sub> 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% CO<sub>2</sub>.
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

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

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