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# TJP2 Knockout HeLa Cell Line, Homozygous

**Catalog No.: RM01925**

## Basic Information

**Catalog No.**
RM01925

**Category**
Cell Line

**Parental Cell line**
HeLa

**Genotype**
Knockout

## Gene Information

**Gene Symbol**
TJP2

**Species**
Human

**Gene ID**
9414

**Swiss Prot**
Q9UDY2

**Synonyms**
C9DUPq21.11; DFNA51; DUP9q21.11; PFIC4; X104; ZO2

## Contact


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## Background

This gene encodes a zonula occluden that is a member of the membrane-associated guanylate kinase homolog family. The encoded protein functions as a component of the tight junction barrier in epithelial and endothelial cells and is necessary for proper assembly of tight junctions. Mutations in this gene have been identified in patients with hypercholanemia, and genomic duplication of a 270 kb region including this gene causes autosomal dominant deafness-51. Alternatively spliced transcripts encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Nov 2011]

## Product Information

**Description**
TJP2 Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing Technology.
Allele-1:67bp deletion in exon1
Allele-2:67bp 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**
1~5x$10^6$ cells/vial

**Storage**
Stored in liquid nitrogen for a long time less than -130℃. 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℃ 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.

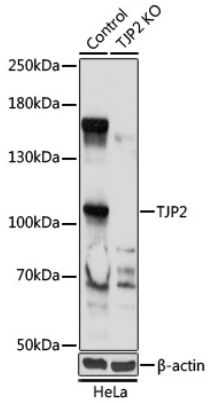
## Sequencing data

WT GGAATTGCAGTGTC**********GGTGGGCCTGCTGA
Mut GGAATTGCAGTGTC***Deletion***GGTGGGCCTGCTGA
Allele-1: 67bp deletion in exon1

WT GGAATTGCAGTGTC**********GGTGGGCCTGCTGA
Mut GGAATTGCAGTGTC***Deletion***GGTGGGCCTGCTGA
Allele-2: 67bp deletion in exon1

Genome sequence analysis of PCR products from parental (WT) and TJP2 knockout (KO) HeLa cells, using sanger sequencing.

## WB data




Western blot analysis of extracts from parental (Control) and TJP2 Knockout HeLa Cell Line, using TJP2 antibody at 1:1000 dilution.