

# PER2 Knockout 293T Cell Lysate, Homozygous

Catalog No.: RM50144

## Basic Information

**Catalog No.**

RM50144

**Category**

Cell Lysate

**Parental Cell line**

293T

**Genotype**

Knockout

## Gene Information

**Gene Symbol**

PER2

**Species**

Human

**Gene ID**

8864

**Swiss Prot**

O15055

**Synonyms**

FASPS; FASPS1; PER2

## Contact

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## Background

This gene is a member of the Period family of genes and is expressed in a circadian pattern in the suprachiasmatic nucleus, the primary circadian pacemaker in the mammalian brain. Genes in this family encode components of the circadian rhythms of locomotor activity, metabolism, and behavior. This gene is upregulated by CLOCK/ARNTL heterodimers but then represses this upregulation in a feedback loop using PER/CRY heterodimers to interact with CLOCK/ARNTL. Polymorphisms in this gene may increase the risk of getting certain cancers and have been linked to sleep disorders.

## Product Information

**Description**

PER2 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:104bp deletion in exon1

Allele-2:104bp 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 Lysate and 1 vial knockout cell Lysate

**Shipping Conditions**

4°C

**Amount**

50µL, 2µg/µL.

**Storage**

Lysate is stable for 12 months when stored at -20°C. Minimizing freeze-thaw cycles.

**Protocol**

To be used as WB control. Lysate is supplied in 1× SDS sample buffer (2% SDS, 60 mM Tris-HCl pH 6.8, 10% Glycerol, 0.02% Bromophenol blue, 60 mM beta-mercaptoethanol). Lysate should be boiled for 3 - 5 minutes before loading onto gel.

## Sequencing data

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WT CCCCACCAAGGAGC\*\*\*\*\*TCGCAGGGCAGTGA  
Mut CCCCACCAAGGAGC\*\*\*Deletion\*\*\*TCGCAGGGCAGTGA  
Allele-1: 104bp deletion in exon1  
WT CCCCACCAAGGAGC\*\*\*\*\*TCGCAGGGCAGTGA  
Mut CCCCACCAAGGAGC\*\*\*Deletion\*\*\*TCGCAGGGCAGTGA  
Allele-2: 104bp deletion in exon1

Genome sequence analysis of PCR products from parental (WT) and PER2 knockout (KO) 293T cells, using sanger sequencing.