

# GSR Knockout HeLa Cell Lysate, Homozygous

Catalog No.: RM50043

## Basic Information

**Catalog No.**

RM50043

**Category**

Cell Lysate

**Parental Cell line**

HeLa

**Genotype**

Knockout

## Gene Information

**Gene Symbol**

GSR

**Species**

Human

**Gene ID**

2936


**Swiss Prot**

P00390

**Synonyms**

GR; GSRD; HEL-75; HEL-S-122m; GSR

## Contact

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## Background

This gene encodes a member of the class-I pyridine nucleotide-disulfide oxidoreductase family. This enzyme is a homodimeric flavoprotein. It is a central enzyme of cellular antioxidant defense, and reduces oxidized glutathione disulfide (GSSG) to the sulfhydryl form GSH, which is an important cellular antioxidant. Rare mutations in this gene result in hereditary glutathione reductase deficiency. Multiple alternatively spliced transcript variants encoding different isoforms have been found.

## Product Information

**Description**

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

Allele-1:109bp deletion in exon1

Allele-2:109bp 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 CCGCCGCCCGCTG\*\*\*\*\*CCACAAGTGGGTG  
Mut CCGCCGCCCGCTG\*\*\*Deletion\*\*\*CCACAAGTGGGTG  
Allele-1: 109bp deletion in exon1

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

WT CCGCCGCCCGCTG\*\*\*\*\*CCACAAGTGGGTG  
Mut CCGCCGCCCGCTG\*\*\*Deletion\*\*\*CCACAAGTGGGTG  
Allele-2: 109bp deletion in exon1