

# MUC1 Knockout HeLa Cell Lysate, Homozygous

**Catalog No.: RM02475**

## Basic Information

**Catalog No.**

RM02475

**Category**

Cell Lysate

**Parental Cell line**

HeLa

**Genotype**

Knockout

## Background

This gene encodes a membrane-bound protein that is a member of the mucin family. Mucins are O-glycosylated proteins that play an essential role in forming protective mucous barriers on epithelial surfaces. These proteins also play a role in intracellular signaling. This protein is expressed on the apical surface of epithelial cells that line the mucosal surfaces of many different tissues including lung, breast stomach and pancreas. This protein is proteolytically cleaved into alpha and beta subunits that form a heterodimeric complex. The N-terminal alpha subunit functions in cell-adhesion and the C-terminal beta subunit is involved in cell signaling. Overexpression, aberrant intracellular localization, and changes in glycosylation of this protein have been associated with carcinomas. This gene is known to contain a highly polymorphic variable number tandem repeats (VNTR) domain. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Feb 2011]

## Gene Information

**Gene Symbol**

MUC1

**Species**

Human

**Gene ID**

4582

**Swiss Prot**

P15941

**Synonyms**

ADMCKD; ADMCKD1; CA 15-3; CD227;  
EMA; H23AG; KL-6; MAM6; MCD; MCKD;  
MCKD1; MUC-1; MUC-1/SEC; MUC-1/X;  
MUC1/ZD; PEM; PEMT; PUM

## Contact

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## Product Information

**Description**

MUC1 Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing technology.

Allele-1:182bp deletion in exon1

Allele-2:182bp 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 GACCGGTATAAGC\*\*\*\*\*TAGGTGGTCTTCGTG  
Mut GACCGGTATAAGC\*\*\*Deletion\*\*\*TAGGTGGTCTTCGTG  
Allele-1: 182bp deletion in exon1  
WT GACCGGTATAAGC\*\*\*\*\*TAGGTGGTCTTCGTG  
Mut GACCGGTATAAGC\*\*\*Deletion\*\*\*TAGGTGGTCTTCGTG  
Allele-2: 182bp deletion in exon1

Genome sequence analysis of PCR products from parental (WT) and MUC1 knockout (KO) HeLa cells, using sanger sequencing.