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SHMT2 Knockout HeLa Cell Lysate, Homozygous

Catalog No.: RM02289

Basic Information

Catalog No.
RM02289

Category
Cell Lysate

Parental Cell line
HeLa

Genotype
Knockout

Background

This gene encodes the mitochondrial form of a pyridoxal phosphate-dependent enzyme that catalyzes the reversible reaction of serine and tetrahydrofolate to glycine and 5,10-methylene tetrahydrofolate. The encoded product is primarily responsible for glycine synthesis. The activity of the encoded protein has been suggested to be the primary source of intracellular glycine. The gene which encodes the cytosolic form of this enzyme is located on chromosome 17. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2009]

Gene Information

Gene Symbol
SHMT2

Species
Human

Gene ID
6472

Swiss Prot
P34897

Synonyms
GLYA; HEL-S-51e; SHMT

Product Information

Description
SHMT2 Knockout HeLa Cell Line is engineered from HeLa cell line with Gene-Editing technology.
Allele-1:58bp deletion in exon2
Allele-2:59bp deletion in exon2
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℃

Amount
50μL, 2μg/μL.

Storage
Lysate is stable for 12 months when stored at -20℃. 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.

Contact

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Sequencing data

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WT    AGGAGAGCCTGTCG**************GCCTGGAGCTCATT
Mut   AGGAGAGCCTGTCG***Deletion***GCCTGGAGCTCATT
Allele-1：58bp deletion in exon2

WT    AGGAGAGCCTGTCG**************CCTGGAGCTCATTG
Mut   AGGAGAGCCTGTCG***Deletion***CCTGGAGCTCATTG
Allele-2：59bp deletion in exon2
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Genome sequence analysis of PCR products from parental (WT) and SHMT2 Knockout (KO) HeLa cells, using sanger sequencing.