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TOP2A Knockout 293T Cell Lysate, Homozygous

Catalog No.: RM02473

Basic Information

Catalog No.
RM02473

Category
Cell Lysate

Parental Cell line
293T

Genotype
Knockout

Background

This gene encodes a DNA topoisomerase, an enzyme that controls and alters the topologic states of DNA during transcription. This nuclear enzyme is involved in processes such as chromosome condensation, chromatid separation, and the relief of torsional stress that occurs during DNA transcription and replication. It catalyzes the transient breaking and rejoining of two strands of duplex DNA which allows the strands to pass through one another, thus altering the topology of DNA. Two forms of this enzyme exist as likely products of a gene duplication event. The gene encoding this form, alpha, is localized to chromosome 17 and the beta gene is localized to chromosome 3. The gene encoding this enzyme functions as the target for several anticancer agents and a variety of mutations in this gene have been associated with the development of drug resistance. Reduced activity of this enzyme may also play a role in ataxia-telangiectasia. [provided by RefSeq, Jul 2010]

Gene Information

Gene Symbol
TOP2A

Species
Human

Gene ID
7153

Swiss Prot
P11388

Synonyms
TOP2; TP2A

Product Information

Description
TOP2A Knockout 293T Cell Line is engineered from 293T cell line with Gene-Editing technology.
Allele-1:97bp deletion in exon1
Allele-2:97bp 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℃

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     CTTGAGCCCCTTCA**************GTGACGGGTGAAGC
Mut    CTTGAGCCCCTTCA***Deletion***GTGACGGGTGAAGC
Allele-1：97bp deletion in exon1

WT     CTTGAGCCCCTTCA**************GTGACGGGTGAAGC
Mut    CTTGAGCCCCTTCA***Deletion***GTGACGGGTGAAGC
Allele-2：97bp deletion in exon1
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Genome sequence analysis of PCR products from parental (WT) and TOP2A knockout (KO) 293T cells, using sanger sequencing.