

CTCF Knockout 293T Cell Lysate, Homozygous

Catalog No.: RM01993

Basic Information

Catalog No.

RM01993

Category

Cell Lysate

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

CTCF

Species

Human

Gene ID

10664

Swiss Prot

P49711

Synonyms

MRD21

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Background

This gene is a member of the BORIS + CTCF gene family and encodes a transcriptional regulator protein with 11 highly conserved zinc finger (ZF) domains. This nuclear protein is able to use different combinations of the ZF domains to bind different DNA target sequences and proteins. Depending upon the context of the site, the protein can bind a histone acetyltransferase (HAT)-containing complex and function as a transcriptional activator or bind a histone deacetylase (HDAC)-containing complex and function as a transcriptional repressor. If the protein is bound to a transcriptional insulator element, it can block communication between enhancers and upstream promoters, thereby regulating imprinted expression. Mutations in this gene have been associated with invasive breast cancers, prostate cancers, and Wilms' tumors. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2010]

Product Information

Description

CTCF Knockout 293T Cell Line is engineered from 293T cell line with Gene-Editing technology.

Allele-1:exon2 was deleted

Allele-2:exon2 was deleted

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

WT AGTGCCCAAG*****AATTCGTTGTT
Mut AGTGCCCAAG***Deletion(358bp)**AATTCGTTGTT
Allele-1: exon2 was deleted

Genome sequence analysis of PCR products from parental (WT) and CTCF knockdown (KD) 293T cells, using sanger sequencing.

WT TCGTATTCAG*****GTAGGACTTCT
Mut TCGTATTCAG*****GTAGGACTTCT
Allele-2: WT