

ATF6 Knockout HeLa Cell Lysate, Homozygous

Catalog No.: RM02070

Basic Information

Catalog No.

RM02070

Category

Cell Lysate

Parental Cell line

HeLa

Genotype

Knockout

Gene Information

Gene Symbol

ATF6

Species

Human

Gene ID

22926

Swiss Prot

P18850

Synonyms

ACHM7; ATF6A

Contact

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Background

This gene encodes a transcription factor that activates target genes for the unfolded protein response (UPR) during endoplasmic reticulum (ER) stress. Although it is a transcription factor, this protein is unusual in that it is synthesized as a transmembrane protein that is embedded in the ER. It functions as an ER stress sensor/transducer, and following ER stress-induced proteolysis, it functions as a nuclear transcription factor via a cis-acting ER stress response element (ERSE) that is present in the promoters of genes encoding ER chaperones. This protein has been identified as a survival factor for quiescent but not proliferative squamous carcinoma cells. There have been conflicting reports about the association of polymorphisms in this gene with diabetes in different populations, but another polymorphism has been associated with increased plasma cholesterol levels. This gene is also thought to be a potential therapeutic target for cystic fibrosis. [provided by RefSeq, Aug 2011]

Product Information

Description

ATF6 Knockout HeLa Cell Line is engineered from HeLa 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 ATGAGAAACCTTAA*****CCTAGGGATGGGTG
Mut ATGAGAAACCTTAA***Deletion***CCTAGGGATGGGTG
Allele-1: exon2 was deleted
WT TGGCTAATGAGAAA*****GCTACTAATCTGCC
Mut TGGCTAATGAGAAA***Deletion***GCTACTAATCTGCC
Allele-2: exon2 was deleted

Genome sequence analysis of PCR products from parental (WT) and ATF6 knockout (KO) HeLa cells, using sanger sequencing.