

# STAT3 Knockout HeLa Cell Lysate, Homozygous

Catalog No.: RM01798

#### **Basic Information**

Catalog No.

RM01798

Category

Cell Lysate

**Parental Cell line** 

HeLa

Genotype

Knockout

#### **Gene Information**

#### **Gene Symbol**

STAT3

#### **Species**

Human

#### **Gene ID**

6774

#### **Swiss Prot**

P40763

### Synonyms

ADMIO; ADMIO1; APRF; HIES

#### **Contact**

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## **Background**

The protein encoded by this gene is a member of the STAT protein family. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. This protein is activated through phosphorylation in response to various cytokines and growth factors including IFNs, EGF, IL5, IL6, HGF, LIF and BMP2. This protein mediates the expression of a variety of genes in response to cell stimuli, and thus plays a key role in many cellular processes such as cell growth and apoptosis. The small GTPase Rac1 has been shown to bind and regulate the activity of this protein. PIAS3 protein is a specific inhibitor of this protein. Mutations in this gene are associated with infantile-onset multisystem autoimmune disease and hyper-immunoglobulin E syndrome. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Sep 2015]

#### **Product Information**

#### Description

STAT3 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**

 ${\bf 1}$  vial parental cell Lysate and  ${\bf 1}$  vial knockout cell Lysate

Shipping ConditionsAmount $4^{\circ}C$  $50\mu L$ ,  $2\mu g/\mu L$ .

#### 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  $1\times$  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

GAATGGGTTATAGC\*\*\*\*\*\*\*\*AGTCGGGTGTTAGT Mut GAATGGGTTATAGC\*\*\*Deletion\*\*\*AGTCGGGTGTTAGT Allele-1: exon2 was deleted

WT GAATGGGTTATAGC\*\*\*\*\*\*\*\*AGTCGGGTGTTAGT Mut GAATGGGTTATAAC\*\*\*Deletion\*\*\*AGTCGGGTGTTAGT

Allele-2: exon2 was deleted

Genome sequence analysis of PCR products from parental (WT) and STAT3 knockout (KO) HeLa cells, using sanger sequencing.