

# TNF Knockout HeLa cell lysate, Homozygous

Catalog No.: RM50175

## Basic Information

**Catalog No.**

RM50175

**Category**

Cell Lysate

**Parental Cell line**

HeLa

**Genotype**

Knockout

## Gene Information

**Gene Symbol**

TNF

**Species**

Human

**Gene ID**


7124

**Swiss Prot**

P01375

**Synonyms**DIF; TNFA; TNFSF2; TNLG1F; TNF-alpha;  
TNF- $\alpha$ 

## Contact

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## Background

This gene encodes a multifunctional proinflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily. This cytokine is mainly secreted by macrophages. It can bind to, and thus functions through its receptors TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. This cytokine is involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. This cytokine has been implicated in a variety of diseases, including autoimmune diseases, insulin resistance, psoriasis, rheumatoid arthritis ankylosing spondylitis, tuberculosis, autosomal dominant polycystic kidney disease, and cancer. Mutations in this gene affect susceptibility to cerebral malaria, septic shock, and Alzheimer disease. Knockout studies in mice also suggested the neuroprotective function of this cytokine.

## Product Information

**Description**

TNF Knockout cell line is engineered from HeLa cell line with Gene-Editing Technology.

Allele-1:89bp deletion in exon1

Allele-2:25bp 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°C

**Amount**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

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WT AGCTGGCCGAGGAG\*\*\*\*\*CACGCTCTTGCC  
Mut AGCTGGCCGAGGAG\*\*\*Deletion\*\*\*CACGCTCTTGCC  
Allele-1: 89bp deletion in exon1

WT GGAG\*\*\*\*\*ACAG\*\*\*\*TCTC\*\*\*\*\*GTGG  
Mut GGAG\*\*Deletion\*\*ACAG\*\*\*\*TCTC\*\*Deletion\*\*GTGG  
Allele-2: 25bp deletion in exon1

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