

Datasheet for ABIN2181831

**TNF alpha Protein (AA 77-233)**

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## Overview

Quantity:	100 µg
Target:	TNF alpha
Protein Characteristics:	AA 77-233
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active

## Product Details

Brand:	ActiveMax®
Sequence:	AA 77-233
Characteristics:	This protein carries no "tag". The protein has a calculated MW of 17.4 kDa. The protein migrates as 18 kDa under reducing (R) condition (SDS-PAGE).
Purity:	>95 % as determined by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 0.1 EU per µg by the LAL method.
Grade:	HPLC verified

## Target Details

Target:	TNF alpha
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## Target Details

Alternative Name:	TNF-alpha ( <a href="#">TNF alpha Products</a> )
Background:	Tumor necrosis factor alpha (TNFα) is a cytokine produced primarily by monocytes and macrophages. It is found in synovial cells and macrophages in the tissues. The primary role of TNFα is in the regulation of immune cells. TNFα is able to induce apoptotic cell death, to induce inflammation, and to inhibit tumorigenesis and viral replication. Dysregulation of TNFα production has been implicated in a variety of human diseases, including major depression, Alzheimer's disease and cancer. Recombinant TNFα is used as an immunostimulant under the INN tasonermin. TNFα can be produced ectopically in the setting of malignancy and parallels parathyroid hormone both in causing secondary hypercalcemia and in the cancers with which excessive production is associated.
Molecular Weight:	17.4 kDa
NCBI Accession:	<a href="#">NP_000585</a>
Pathways:	<a href="#">NF-kappaB Signaling</a> , <a href="#">Apoptosis</a> , <a href="#">Caspase Cascade in Apoptosis</a> , <a href="#">TLR Signaling</a> , <a href="#">Cellular Response to Molecule of Bacterial Origin</a> , <a href="#">Regulation of Leukocyte Mediated Immunity</a> , <a href="#">Positive Regulation of Immune Effector Process</a> , <a href="#">Production of Molecular Mediator of Immune Response</a> , <a href="#">Positive Regulation of Endopeptidase Activity</a> , <a href="#">Hepatitis C</a> , <a href="#">Protein targeting to Nucleus</a> , <a href="#">Inflammasome</a>

## Application Details

Restrictions:	For Research Use only
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## Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	Store at -20°C in lyophilized state after receipt. For long term storage, upon reconstitution rhTNFα should be aliquot and store at -20°C or -80°C.

## Publications

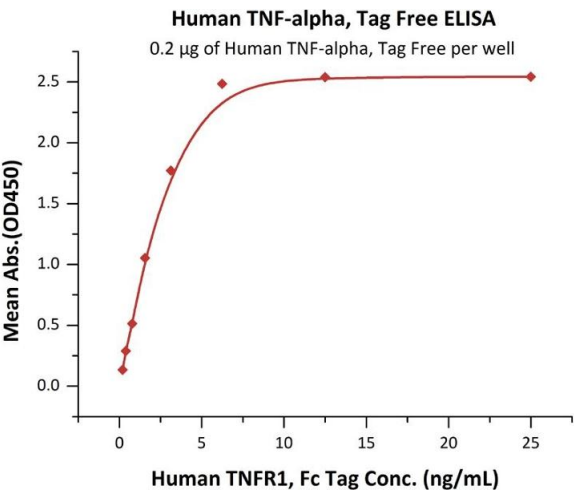
Product cited in:	Hua, Oh, Kim, Antonio, Vo, Om, Choi, Kim, Jung, Park, Jeong: "Peroxisome proliferator-activated receptor gamma as a theragnostic target for mesenchymal-type glioblastoma patients." in:
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**Experimental & molecular medicine**, Vol. 52, Issue 4, pp. 629-642, (2020) ([PubMed](#)).

Yu, Xu, Qu, Yu, Li, Zhao, Qiu: "Decrease of MiR-31 induced by TNF-α inhibitor activates SATB2/RUNX2 pathway and promotes osteogenic differentiation in ethanol-induced osteonecrosis." in: **Journal of cellular physiology**, Vol. 234, Issue 4, pp. 4314-4326, (2019) ([PubMed](#)).

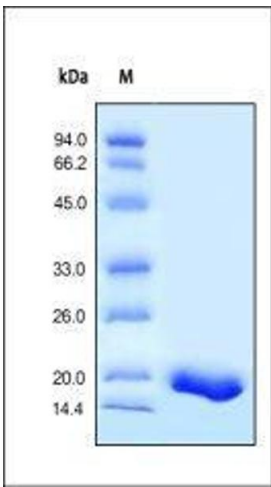
Zhao, Jiang, Wang, Wu: "Overexpression of microRNA-590-3p promotes the proliferation of and inhibits the apoptosis of myocardial cells through inhibition of the NF-κB signaling pathway by binding to RIPK1." in: **Journal of cellular biochemistry**, Vol. 120, Issue 3, pp. 3559-3573, (2019) ([PubMed](#)).

Images



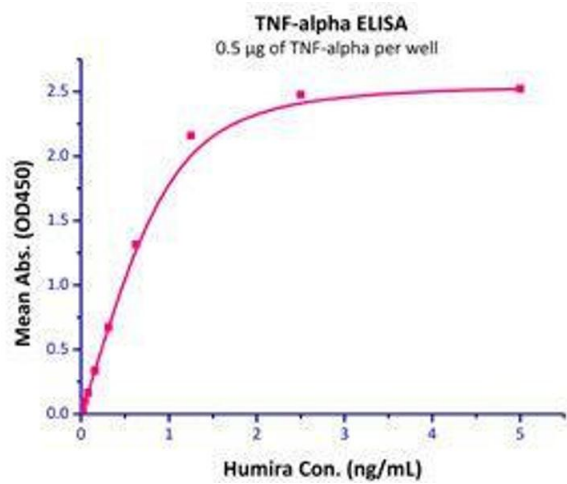
ELISA

**Image 1.** Immobilized Human , Tag Free, low endotoxin (active trimer) (MALS verified) (ABIN2181831,ABIN2181832,ABIN6253648) at 2 µg/mL (100 µL/well) can bind Human TNFR1, Fc Tag (ABIN2181840,ABIN2181839) with a linear range of 0.2-3 ng/mL (Routinely tested).



SDS-PAGE

**Image 2.** Human TNF-alpha (HPLC-verified) on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.



Binding Studies

**Image 3.** Immobilized Human TNF-alpha can bind Humira with a linear range of 0.04-0.6 ng/mL.