

## Recombinant Human Tag-less TNF-α:

Tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ) also known as cachectin, is a pleiotropic cytokine secreted mainly by monocytes and macrophages. It is a trimetric protein encoded within the major histocompatibility complex. It is expressed as a 26 kDa membrane bound protein and is then cleaved by TNF- $\alpha$  converting Genzyme (TACE) to release the soluble 17 kDa monomer, which forms homotrimers in circulation. TNF- $\alpha$  plays a major role in antitumor activity, inflammation, immune system development, apoptosis, anorexia, cachexia, septic shock, viral replication and lipid metabolism. TNF-α also shows antiviral effects against both DNA and RNA Viruses and it induces production of several other cytokines.

Product code: #RTNF002

Qty: 10 μg

Package Contents: Lyophilized vial of TNF-α protein

Nature: Recombinant (E. coli) Amino acid sequence (86-233):

DKPVAHVVANPQAEGQLQWLNRRANALLANGVELRDNQLVVPSEGLYLIYSQVLFKGQGCPSTHVLLTHTISRIAVSYQTKVN

LL SAIKSPCQRETPEGAEAKPWYEPIYLGGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL

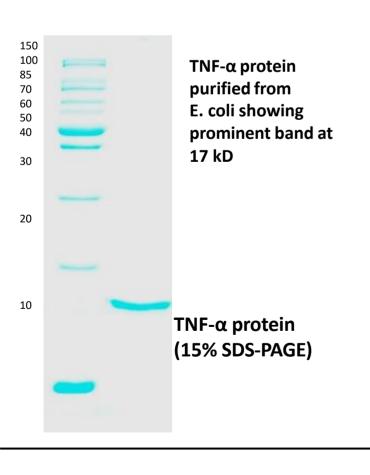
**Purification tag: Tag-Free** 

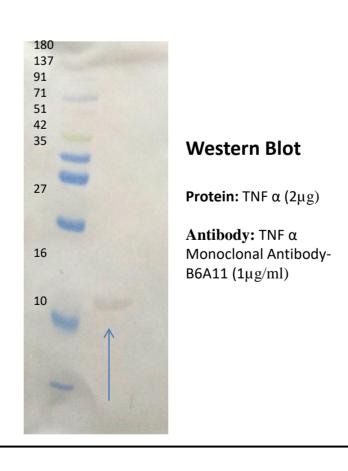
Mol. Wt.: 17 kDa

Purity: > 96%, SDS-PAGE (Coomassie blue staining)

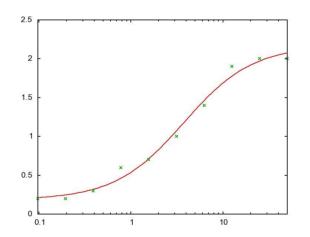
Constituents: 10 mM Tris-HCl + 0.1% Glucose

Applications: Functional studies, drug discovery, protein for research purposes.





### **Quality Control Assays**



Human TNF-alpha, Tag Free (Cat. No. #RTNF002) induces cytotoxicity effect on the L929 cells in the presence actinomycin D. The EC50 for this effect is 1-0.3 ng/mL (Routinely tested)

Kashitas

Signed By

11<sup>th</sup> August 2021

**Ordering Information: GeNext Genomics Pvt. Ltd.** 103, Abhyankar Nagar, Nagpur Ph.No.08888803973, 08380084087

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E-mail: info@genextgenomics.com

#### **Certificate of Analysis**

# Recombinant **TNF-α**



Catalogue Number	RTNF002
Quantity	100 μg
Amino Acid sequence	DKPVAHVVANPQAEGQLQWLNRRANALLANGVELRDNQLVVPSEGLYLIYS QVLFKGQGCPSTHVLLTHTISRIAVSYQTKVNLL SAIKSPCQRETPEGAEAKPWYEPIYLGGVFQLEKGDRLSAEINRPDYLDFAES GQVYFGIIAL
Molecular Weight	17kDa
Purification method	SDS-PAGE
Purity	> 96%, SDS-PAGE (Coomassie blue staining)
Quantification	Bradford and Lowry's method
Biological Activity	Human TNF-alpha, Tag Free (Cat. No. #RTNF002) induces cytotoxicity effect on the L929 cells in the presence actinomycin D. The EC50 for this effect is 1-0.3 ng/mL (Routinely tested)
Formulation	Lyophilized powder in buffer (50 mM Tris-HCl, pH 8 + 50mM NaCl + 2.5% Sucrose + 1mM KCl)
Sterility	Filtered prior to lyophilization through a 0.22 μ sterile filter.
Production	Recombinant produced in <i>E. coli</i> without His Tag (Tag-Free)
Reconstitution Recommendation	It is recommended to briefly spin the vial prior to opening to bring the contents to the bottom. Reconstitute lyophilized protein in 250 $\mu$ L of sterile water.
Suggested Working Dilutions	The optimal concentration should be determined for each specific application.
Storage	Store lyophilized human TNF- $\alpha$ at 2 °C to 8 °C, preferably desiccated. Upon reconstitution, prepare working aliquots and store at $\leq$ -20 °C. Avoid repeated freeze/thaw cycles.
<b>Expiration Date</b>	Expires two years from date of receipt when stored as instructed.

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