

# CERTIFICATE OF ANALYSIS

**Product name:** Recombinant Human TNF- $\alpha$  (rHu TNF- $\alpha$ )

**Catalog:** AC52380

**Size :** 100  $\mu$ g

**Lot:** 1053230430

**Source:** *Escherichia coli*.

**Molecular Weight:** Approximately 17.48 kDa, a single non-glycosylated polypeptide chain containing 158 amino acids.

**Description :** E. coli-derived human TNF-alpha protein Val77-Leu233 with an N-terminal Met  
Accession # P01375.

**SDS-PAGE:** 17.48 kDa, under reducing condition.

**Physical Appearance:** Sterile Filtered White lyophilized (freeze-dried) powder.

**Formulation:** Lyophilized from a 0.2  $\mu$ m filtered solution in PBS.

**Reconstitution:** We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute to a concentration of 0.1-1.0 mg/mL in sterile distilled H<sub>2</sub>O. Stock solutions should be apportioned into working aliquots and stored at -20 °C to -70 °C. Further dilutions should be made in appropriate buffered solutions. **Do not reconstitute in cell culture media directly.**

**Shipping:** The product is shipped at 2 °C to 8 °C. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage:** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.  
A minimum of 12 months from date of shipping when stored at -20 °C to -70 °C as supplied.  
4 weeks at 2 °C to 8 °C under sterile conditions after reconstitution.  
4 months at -20 °C to -70 °C under sterile conditions after reconstitution.

Quality control assays		
Test	Standard	Result
Endotoxin	< 0.1EU// $\mu$ g	Pass
Purity	> 95%	Pass
Sterility	Negative	Pass
Bioactivity-ELISA	Immobilized Recombinant human TNF- $\alpha$ (Catalog #AC52380) at 0.2 $\mu$ g/well can bind human TNF- $\alpha$ R1 with a linear range of 57.68 to 75.48 ng/mL.	Pass
Bioactivity-BLI	Loaded Human TNF- $\alpha$ R1, can bind Recombinant Human TNF- $\alpha$ (Catalog #AC52380) with an affinity constant of 0.119nM as determined in BLI assay (Octet®R8).	Pass
Bioactivity-Cell based assay	Recombinant human TNF- $\alpha$ (Catalog #AC52380) bioactivity is measured in a cytotoxicity assay using IL-929 mouse fibroblast cells, the EC50 for this effect is 0.7191 to 10.43 ng/mL.	Pass

This product lot has passed Acnovia's QC testing.

For research use only.

