

**Recombinant Human TNF- $\alpha$**   
**Catalog # PBG10452****Specification**

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**Recombinant Human TNF- $\alpha$  - Product Information****Recombinant Human TNF- $\alpha$  - Additional Information****Description**

TNF- $\alpha$  is a pleiotropic pro-inflammatory cytokine secreted by various cells including adipocytes, activated monocytes, macrophages, B cells, T cells and fibroblasts. It belongs to the TNF family of ligands and signals through two receptors, TNFR1 and TNFR2. TNF- $\alpha$  is cytotoxic to a wide variety of tumor cells and is an essential factor in mediating the immune response against bacterial infections. TNF- $\alpha$  also plays a role in the induction of septic shock, auto immune diseases, rheumatoid arthritis, inflammation, and diabetes. Recombinant human TNF- $\alpha$  is a soluble 157 amino acid protein (17.4 kDa) which corresponds to C-terminal extracellular domain of the full length transmembrane protein.

**BiologicalActivity**

The  $ED_{50}$  as determined by the cytolysis of murine L929 cells in the presence of Actinomycin D is  $\leq 0.05$  ng/ml, corresponding to a specific activity of  $\geq 2 \times 10^7$  units/mg.

**Authenticity**

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

**Endotoxin**

Endotoxin level is  $<0.1$  ng/  $\mu$ g of protein ( $<1EU/ \mu$ g).

**Protein Content**

Verified by UV Spectroscopy and/or SDS-PAGE gel.

**Storage**

-20°C

**Precautions**

Recombinant Human TNF- $\alpha$  is for research use only and not for use in diagnostic or therapeutic procedures.

**Recombinant Human TNF- $\alpha$  - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)

- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Recombinant Human TNF- $\alpha$  - Images**