



## Tumor Necrosis Factor-alpha, HEK, human recombinant (rHuTNF-a-HEK)

**Catalog No:** 97579  
**Lot No:** XXXXX  
**Source:** HEK293  
**Synonyms:** TNF-alpha, Tumor necrosis factor ligand superfamily member 2, TNF-a, Cachectin, DIF, TNFA, TNFSF2

### Background

Tumor necrosis factor is a cytokine involved in systemic inflammation and is a member of a group of cytokines that all stimulate the acute phase reaction. TNF is mainly secreted by macrophages. TNF causes apoptotic cell death, cellular proliferation, differentiation, inflammation, tumorigenesis and viral replication, TNF is also involved in lipid metabolism, and coagulation. TNF's primary role is in the regulation of immune cells. Dysregulation and, in particular, overproduction of TNF have been implicated in a variety of human diseases- autoimmune diseases, insulin resistance, and cancer.

### Description

Tumor Necrosis Factor-a human recombinant produced in HEK cells is a glycosylated non-disulfide linked homotrimer, containing 157 and having total Mw of 17 kDa. TNF-a is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

The TNF-a protein was lyophilized from 1 mg/ml in 1xPBS.

### Solubility

It is recommended to reconstitute the lyophilized TNF-a in sterile water not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

### Stability

Lyophilized TNF-a, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TNF-a should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Purity

Greater than 95% as observed by SDS-PAGE.

### Amino Acid Sequence

VRSSSRTPSD KPVAVHVVANP QAEGQLQWLN RRANALLANG VELRDNQLVV PSEGLYLIYS QVLFKGQGCP STHVLLTHTI  
SRIAVSYQTK VNLLSAIKSP CQRETPEGAE AKPWYEPIYL GGVFQLEKGD RLSAEINRPD YLDFAESGQV YFGIIAL

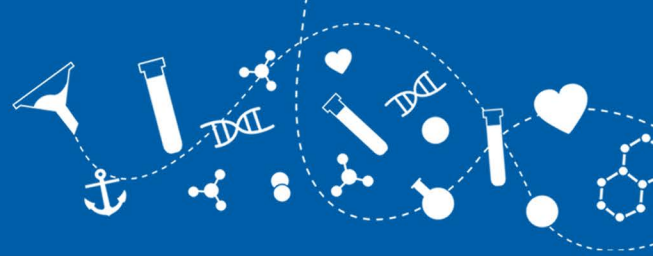
### Activity

The specific activity was determined by the dose-dependent cytotoxicity of the TNF alpha sensitive cell line L-929 in the presence of Actinomycin D and is typically 0.05 - 0.5 ng/ml.

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#### Usage

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