

## Recombinant Equine Tumor Necrosis Factor-alpha (req TNF-alpha)

**Synonyms:** Tumor necrosis factor ligand superfamily member 2, Cachectin, DIF, TNFSF2, Necrosin, Cytotoxin.

**Introduction:** 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. TNFalpha is mainly secreted by macrophages. TNFalpha causes apoptotic cell death, cellular proliferation, differentiation, inflammation, tumorigenesis and viral replication and 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 TNFalpha have been implicated in a variety of human diseases- autoimmune diseases, insulin resistance and cancer.

**Description:** Recombinant equine TNF-alpha produced in *E. Coli* is a single, non-glycosylated polypeptide chain containing 157 amino acids and having a molecular mass of 17125 Dalton. The req TNF-alpha is purified by standard chromatographic techniques.

**Source:** *Escherichia Coli*

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** Lyophilised from a 0.2 µm filtered solution in PBS, pH 7.4

**Solubility:** It is recommended to reconstitute the lyophilized req TNF-alpha in sterile H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized req TNF-alpha although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution req TNF-alpha 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 98.0% as determined by SDS-PAGE.

**Amino Acid Sequence:** The sequence of the first five N-terminal amino acids was determined and was found to be Met-Arg-Ser-Ser-Ser.

**Biological Activity:** The ED<sub>50</sub> as determined by the cytotoxicity of murine L929 cells in the presence of Actinomycin D is < 0.25 ng/ml.

**Endotoxicity:** The endotoxin level is less than 1ng /µg (IEU/µg) determined by LAL method

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	5 µg	Cat.N°	18343010
<i>medium</i>	20 µg	Cat.N°	18343014
<i>large</i>	100 µg	Cat.N°	18343016

**ImmunoTools** Excellent Quality - Advantageously priced

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