

Datasheet for 009-001-306

## rHuman TNF alpha Protein

### Overview

<b>Description:</b>	TNF- $\alpha$ Human Recombinant Protein - 009-001-306
<b>Item No.:</b>	009-001-306
<b>Size:</b>	50 $\mu$ g
<b>Applications:</b>	SDS-PAGE
<b>Origin:</b>	Human
<b>Expressed in:</b>	E. coli

### Product Details

<b>Background:</b>	TNF $\alpha$ is secreted by macrophages, monocytes, neutrophils, T-cells, and NK- cells following their stimulation by bacterial LPS. Cells expressing CD4 secrete TNF-alpha, while CD8 cells secrete little or no TNF-alpha. The synthesis of TNF-alpha is induced by many different stimuli including interferons, IL2, and GM-CSF. Recombinant Human Tumor Necrosis Factor-alpha produced in E. coli is a single, non-glycosylated, polypeptide chain containing 158 amino acids and having a molecular mass of 17483.77 Daltons.
<b>Synonyms:</b>	Tumor necrosis factor, TNF-alpha, TNF-a, TNF $\alpha$ , cytokine, Tumor necrosis factor ligand superfamily member 2, Cachectin
<b>Species of Origin:</b>	Human
<b>Expressed in:</b>	E. coli
<b>Type:</b>	Recombinant Protein
<b>Low Endotoxin:</b>	Yes

### Target Details

<b>Gene Name:</b>	TNFA
<b>Purity/Specificity:</b>	Purity was determined to be greater than 98% by analysis by RP-HPLC and by reducing and non-reducing SDS-PAGE.
<b>Relevant Links:</b>	<ul style="list-style-type: none"><li>• <a href="#">UniProtKB - P01375</a></li><li>• <a href="#">NCBI</a></li></ul>

## Application Details

<b>Tested Applications:</b>	SDS-PAGE
<b>Application Note:</b>	TNF $\alpha$ protein has been tested by SDS-PAGE and is suitable as a control for polyclonal or monoclonal anti-TNF $\alpha$ in immunological assays.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>Other:</b>	Biological Activity: TNF- $\alpha$ activity is determined by the cytolysis of mouse L929 cells in the presence of Actinomycin D and is typically less than 0.05 ng/mL. Endotoxin Level: Measured by kinetic LAL analysis and is typically $\leq 1$ EU/ $\mu$ g protein.

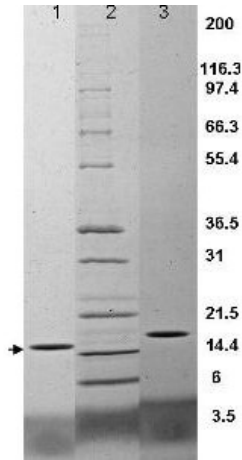
## Formulation

<b>Physical State:</b>	Lyophilized
<b>Concentration:</b>	0.1 mg/mL by UV absorbance at 280 nm
<b>Buffer:</b>	0.01 M Sodium Phosphate, pH 7.5
<b>Preservative:</b>	None
<b>Stabilizer:</b>	None
<b>Reconstitution Volume:</b>	500 $\mu$ L
<b>Reconstitution Buffer:</b>	Restore with deionized water (or equivalent)

## Shipping & Handling

<b>Shipping Condition:</b>	Ambient
<b>Storage Condition:</b>	Store vial at -20° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL) . For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.
<b>Expiration:</b>	Expiration date is six (6) months from date of receipt.

## Images



### SDS-PAGE

SDS-PAGE shows bands corresponding to TNF $\alpha$  (1 $\mu$ g) in lane 1 (unreduced, arrowhead) and lane 3 (reduced). Molecular weight estimation was made by comparison to prestained MW markers, lane 2.

## Disclaimer

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