

## Active GMP Recombinant Human TNF Protein

**Cat. No.** TNF-01HG    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant human TNF protein, was expressed in CHO-K1 cell-derived in an animal component free process under cGMP guidelines.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>           | CHO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Description</b>      | <p>This gene encodes a multifunctional proinflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily. This cytokine is mainly secreted by macrophages. It can bind to, and thus functions through its receptors TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. This cytokine is involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. This cytokine has been implicated in a variety of diseases, including autoimmune diseases, insulin resistance, psoriasis, rheumatoid arthritis ankylosing spondylitis, tuberculosis, autosomal dominant polycystic kidney disease, and cancer. Mutations in this gene affect susceptibility to cerebral malaria, septic shock, and Alzheimer disease. Knockout studies in mice also suggested the neuroprotective function of this cytokine.</p> |
| <b>Form</b>             | Lyophilized powder                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Endotoxin</b>        | <20 EU/mg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Bio-activity</b>     | >3.0 x 10 <sup>7</sup> IU/mg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>         | >98.0% by high performance liquid chromatography (SEC-HPLC) and SDS-PAGE.                                                                                                                                        |
| <b>Storage Buffer</b> | 10mM Phosphate-Buffered Saline (pH 7.2)                                                                                                                                                                          |
| <b>Storage</b>        | Stable storage at 4°C for 7-10 days; for long-term storage, please store at -20°C after dispensing.                                                                                                              |
| <b>Sterility</b>      | Sterility                                                                                                                                                                                                        |
| <b>Instructions</b>   | It is recommended that lyophilized GMP rhTNF be dissolved in water for injection or sterilized ultrapure water at a concentration of not less than 100 µg/ml, pending further dilution to working concentration. |

## GENE INFORMATION

|                        |                                                    |
|------------------------|----------------------------------------------------|
| <b>Gene Name</b>       | TNF tumor necrosis factor [ Homo sapiens (human) ] |
| <b>Official Symbol</b> | TNF                                                |
| <b>Synonyms</b>        | DIF; TNFA; TNFSF2; TNLG1F; TNF-alpha               |
| <b>Gene ID</b>         | 7124                                               |
| <b>mRNA Refseq</b>     | NM_000594.4                                        |
| <b>Protein Refseq</b>  | NP_000585.2                                        |
| <b>UniProt ID</b>      | P01375                                             |
| <b>MIM</b>             | 191160                                             |

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