GMP Recombinant Human TNF protein

Cat. No. TNF-4342HG **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TNF protein was expressed in Escherichia coli. This product is produced under cGMP guidelines.
Species	Human
Source	E.coli
ProteinLength	158
Description	Tumor necrosis factor alpha (TNF-α), also called cachectin, is the best-know member of the TNF-family, which can cause cell death. This protein is produced by neutrophils, activated lymphocytes, macrophages, NK cells, LAK cells, astrocytes endothelial cells, smooth muscle cells and some transformed cells. TNF-α occurs as a secreted, soluble form and as a membrane-anchored form, both of which are biologically active. The naturally-occurring form of TNF-α is glycosylated, but non-glycosylated recombinant TNF-α has comparable biological activity. The biologically active native form of TNF-α is reportedly a trimer. Human and murine TNF-α show approximately 79 % homology at the amino acid level and cross-reactivity between the two species. Two types of receptors for TNF-α have been described and virtually all cell types studied show the presence of one or both of these receptor types.
Form	Lyophilized from a 0.2μm filtered concentrated solution in 10 mM PB, 10 mM NaCl, pH 7.0.

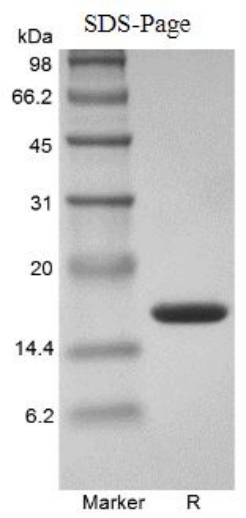
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Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by a cytotoxicity assay using murine L929 cells is less than 0.05 ng/ml, corresponding to a specific activity of > 2.0×10^7 IU/mg in the presence of actinomycin D.
Molecular Mass	Approximately 17.5 kDa, a single non-glycosylated polypeptide chain containing 158 amino acids.
AA Sequence	MVRSSSRTPSDKPVAHVVANPQAEGQLQWLNRRANALLANGVELRDNQLVVPSEG LYLIYSQVLFKGQGCPSTHVLLTHTISRIAVSYQTKVNLLSAIKSPCQRETPEGAEAKP WYEPIYLGGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL
Endotoxin	Less than 0.01 EU/μg of rHuTNF-α/TNFSF2 GMP as determined by LAL method.
Purity	>98% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions.

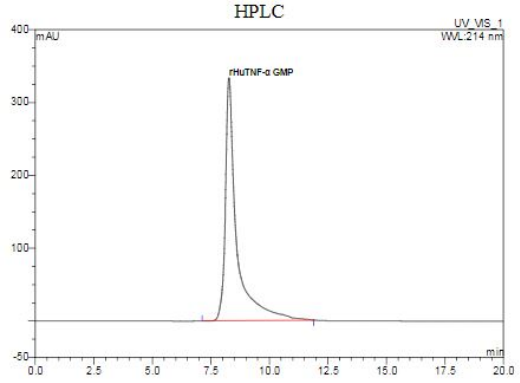
GENE INFORMATION

Gene Name	TNF
Official Symbol	TNF

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Synonyms	TNF; tumor necrosis factor; TNFA, tumor necrosis factor (TNF superfamily, member 2); DIF; TNF superfamily; member 2; TNF alpha; TNFSF2; TNF-a; cachectin; APC1 protein; TNF, monocyte-derived; TNF, macrophage-derived; TNF superfamily, member 2; tumor necrosis factor alpha; tumor necrosis factor-alpha; tumor necrosis factor ligand superfamily member 2; TNFA; TNF-alpha;
Gene ID	7124
mRNA Refseq	NM_000594
Protein Refseq	NP_000585
MIM	191160
UniProt ID	P01375
SDS-PAGE of TNF-4342HG	

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HPLC of TNF-4342HG	

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