

Tumor Necrosis Factor-alpha Recombinant Protein | TNF recombinant protein

Human Tumor Necrosis Factor-alpha Recombinant

CATALOG #	HOST
AAA76072	E Coli (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)

PRODUCT SYNONYMS

Tumor Necrosis Factor-alpha; Human Tumor Necrosis Factor-alpha Recombinant; tnfr- α ; tumor necrosis factor; Cachectin; tnfa; TNF recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)
Purity/Purification	>95%, as determined by SDS-PAGE and HPLC
Form/Format	TNF- α was lyophilized from a 0.2um filtered concentrated (1mg/ml) solution in PBS, pH 7.2.
Sequence	MSTESMIRDV ELAEEALPKK TGGPQGSRRRC LFLSLFSFLI VAGATTLFCL LHFGVIGPQR EEFPRDLSLI SPLAQAVRSS SRTPSDKPVA HVVANPQAEG QLQWLNRRAN ALLANGVELR DNQLVVPSEG LYLIYSQVLF KGQGCPSTHV LLTHTISRIA VSYQTKVNLL SAIKSPCQRE TPEGAEAKPW YEPIYLGGVF QLEKGDRLSA EINRPDYLDV AESGQVYFGI IAL
Sequence Length	233
Domain	TNF
Host Note	Optimized DNA sequence encoding Human Tumor Necrosis Factor-alpha mature chain was expressed in Escherichia Coli.
Endotoxin	Endotoxin content was assayed using a LAL gel clot method. Endotoxin level was found to be less than 0.1 ng/ug (1EU/ug).
Reconstitution	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Molecular Weight Note	Native human Tumor Necrosis Factor-alpha is generated by the proteolytic removal of the signal peptide and propeptide, this molecule has a calculated mass of approximately 17kDa. Recombinant TNF-alpha is a disulfide-linked monomer protein, consisting of 158 amino acids and migrates as an approximately 17 kDa protein under reducing conditions.
Preparation and Storage	The lyophilized protein is stable for at least 2 years from date of receipt at -20 degree C. Upon reconstitution, this cytokine can be stored in working aliquots at 2 degree - 8 degree C for one month, or at -20 degree C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

ADDITIONAL INFORMATION

Related Product Information for TNF recombinant protein	Tumor Necrosis Factor is secreted by macrophages, monocytes, neutrophils, T-cells, NK- cells following their stimulation by bacterial lipopolysaccharides. Cells expressing CD4 secrete TNF- alpha while CD8 (+) cells secrete little or no TNF- alpha. Stimulated peripheral neutrophilic granulocytes but also unstimulated cells and also a number of transformed cell lines, astrocytes, microglial cells, smooth muscle cells, and fibroblasts also secrete TNF. Human milk also contains this factor.
Product Categories/Family for TNF recombinant protein	Cytokines

References	• tak1-mediated serine/threonine phosphorylation of epidermal growth factor receptor via p38/extracellular signal-regulated kinase: nf-b-independent survival pathways in tumor necrosis factor alpha signaling .<i>Mol. Cell. Biol.</i>, Oct 2009; 29: 5529 - 5539. • tumor necrosis factor--mediated regulation of the inositol 1,4,5-trisphosphate receptor promoter .<i>J. Biol. Chem.</i>, Oct 2009; 284: 27557 - 27566. • trovafloxacin enhances <i>TNF</i>-induced inflammatory stress and cell death signaling and reduces <i>TNF</i> clearance in a murine model of idiosyncratic hepatotoxicity .<i>Toxicol. Sci.</i>, Oct 2009; 111: 288 - 301. • TNF- inhibition attenuates adverse myocardial remodeling in a rat model of volume overload .<i>Am J Physiol Heart Circ Physiol</i>, Oct 2009; 297: H1462 - H1468. • TNF inhibits apoptotic cell clearance in the lung, exacerbating acute inflammation .<i>Am J Physiol Lung Cell Mol Physiol</i>, Oct 2009; 297: L586 - L595.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	25952111
NCBI GeneID	7124
NCBI Accession #	NP_000585.2
NCBI GenBank Nucleotide #	NM_000594.3
UniProt Accession #	P01375; O43647; Q9P1Q2; Q9UIV3; Q5RT83; Q5STB3; Q9UBM5
Molecular Weight	25,644 Da
NCBI Official Full Name	tumor necrosis factor
UniProt Protein Name	Tumor necrosis factor
UniProt Gene Name	TNF
UniProt Synonym Gene Names	TNFA; TNFSF2; TNF-a; NTF; ICD1; ICD2
UniProt Entry Name	TNFA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/tnf-recombinant-protein-e-coli/76072>