

Datasheet for ABIN7555778

## TNF alpha Protein (AA 1-233) (His tag)

3 Images



[Go to Product page](#)

### Overview

Quantity:	1 mg
Target:	TNF alpha
Protein Characteristics:	AA 1-233
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TNF alpha protein is labelled with His tag.

### Product Details

Purpose:	Made-to-order recombinant TNF Protein expressed in mammalian cells.
Sequence:	<p>MSTESMIRDV ELAEEALPKK TGGPQGSRRRC LFLSLFSFLI VAGATTLFCL LHFGVIGPQR</p> <p>EEFPRDLSLI SPLAQAVRSS SRTPSDKPVA HVVANPQAEG QLQWLNRRAN ALLANGVELR</p> <p>DNQLVVPSEG LYLIYSQVLF KGQGCPSTHV LLTHTISRIA VSYQTKVNLL SAIKSPCQRE</p> <p>TPEGAEAKPW YEPIYLGGVF QLEKGDRLSA EINRPDYLDF AESGQVYFGI IAL <b>Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.</b></p>
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	<p>Key Benefits:</p> <ul style="list-style-type: none"> <li>Made to order protein - from design to production - by highly experienced protein experts.</li> </ul>

## Product Details

---

- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

## Target Details

---

Target:	TNF alpha
Alternative Name:	TNF ( <a href="#">TNF alpha Products</a> )
Background:	<p>Tumor necrosis factor (Cachectin) (TNF-alpha) (Tumor necrosis factor ligand superfamily member 2) (TNF-a) [Cleaved into: Tumor necrosis factor, membrane form (N-terminal fragment) (NTF), Intracellular domain 1 (ICD1), Intracellular domain 2 (ICD2), C-domain 1, C-domain 2, Tumor necrosis factor, soluble form],FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin-1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation. Impairs regulatory T-cells (Treg) function in individuals with rheumatoid arthritis via FOXP3 dephosphorylation. Up-regulates the expression of protein phosphatase 1 (PP1), which dephosphorylates the key 'Ser-418' residue of FOXP3, thereby inactivating FOXP3 and rendering Treg cells functionally defective (PubMed:23396208). Key mediator of cell death in the anticancer action of BCG-stimulated neutrophils in combination with DIABLO/SMAC mimetic in the RT4v6 bladder cancer cell line (PubMed:22517918, PubMed:16829952, PubMed:23396208). Induces insulin resistance in adipocytes via inhibition of insulin-induced IRS1 tyrosine</p>

## Target Details

phosphorylation and insulin-induced glucose uptake. Induces GKAP42 protein degradation in adipocytes which is partially responsible for TNF-induced insulin resistance (By similarity). Plays a role in angiogenesis by inducing VEGF production synergistically with IL1B and IL6 (PubMed:12794819). Promotes osteoclastogenesis and therefore mediates bone resorption (By similarity). {ECO:0000250|UniProtKB:P06804, ECO:0000269|PubMed:12794819, ECO:0000269|PubMed:16829952, ECO:0000269|PubMed:22517918, ECO:0000269|PubMed:23396208}., FUNCTION: The TNF intracellular domain (ICD) form induces IL12 production in dendritic cells. {ECO:0000269|PubMed:16829952}.

Molecular Weight: 25.6 kDa

UniProt: [P01375](#)

Pathways: [NF-kappaB Signaling](#), [Apoptosis](#), [Caspase Cascade in Apoptosis](#), [TLR Signaling](#), [Cellular Response to Molecule of Bacterial Origin](#), [Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#), [Production of Molecular Mediator of Immune Response](#), [Positive Regulation of Endopeptidase Activity](#), [Hepatitis C](#), [Protein targeting to Nucleus](#), [Inflammasome](#)

## Application Details

Application Notes: We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

## Handling

Format: Liquid

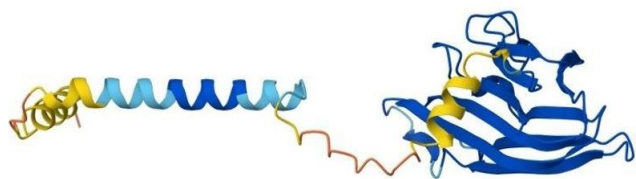
Buffer: The buffer composition is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

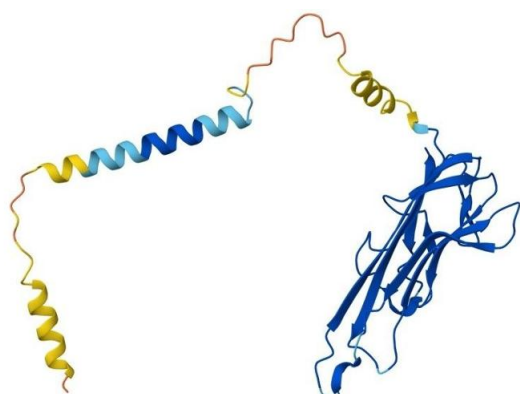
Storage Comment: Store at -80°C.

Expiry Date: 12 months



#### Protein Structure

**Image 1.** AlphaFold protein structure prediction of Human Recombinant TNF Protein, UniprotID P01375



#### Protein Structure

**Image 2.** AlphaFold protein structure prediction of Human Recombinant TNF Protein, UniprotID P01375



#### Protein Structure

**Image 3.** AlphaFold protein structure prediction of Human Recombinant TNF Protein, UniprotID P01375

