

Human TNF-alpha Recombinant Protein, eBioscience™

Product Details

Size	10 µg
Species	Human
Expression system	E. coli
Molecular weight	17.3 kDa
Class	Recombinant
Type	Protein
Purity	>98%
Conjugate	Unconjugated
Form	Lyophilized
Purification	Affinity chromatography
Storage buffer	PBS with 10mg/mL BSA
Contains	no preservative
Storage conditions	4° C

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	Assay-Dependent	-
ELISA (ELISA)	Assay-Dependent	-
Control (Ctrl)	Assay-Dependent	-
Miscellaneous PubMed (Misc)	-	4 Publications

Product Specific Information

Description: Recombinant TNF-alpha is produced in E. coli and is identical in structure with natural human TNF-alpha. TNF-alpha is a 52 kDa trimer composed of 17.3 kDa monomers

Tumor Necrosis Factor is a polypeptide cytokine produced by monocytes and macrophages. It functions as a multipotent modulator of immune response and further acts as a potent pyrogen. TNF-alpha circulates throughout the body responding to stimuli (infectious agents or tissue injury), activating neutrophils, altering the properties of vascular endothelial cells, regulating metabolic activities of other tissues, as well as exhibiting tumoricidal activity by inducing localized blood clotting. TNF-alpha also inhibits lipoprotein lipase activity resulting in cachexia, a physical wasting condition. Activation of B-cells by the Epstein Barr virus can be inhibited by TNF-alpha. Due to its varied actions throughout the immune system, TNF-alpha may play a role in the pathogenesis of many disease states.

TNF-alpha production is mediated by the action of lymphokines and endotoxins on the macrophage. Purified monocytes produce TNF-alpha within four hours of stimulation by recombinant IL-2 and there is some in vitro evidence to suggest that TNF-alpha is expressed at high levels and with prolonged kinetics in T cells stimulated by both CD2 and CD28. Secretion of TNF-alpha is enhanced by gamma interferon. TNF then induces or enhances the specific production of Class I MHC antigen, GM-CSF, and IL-1.

BMS301 is lyophilized in phosphate-buffered saline containing 10 mg/mL bovine serum albumin. Reconstitute with distilled water. Reconstitution in 500 µL distilled water will result in a concentration of BSA of 1%, reconstitution in 1000 µL will result in a concentration BSA of 0.5%.

Reconstituted rhTNF-should be used immediately or divided into appropriate aliquotes and promptly stored at -20°C.

Purity: >98%.

Molecular Weight: 17.3 kDa.

4 References

Miscellaneous PubMed (4)

Oncoimmunology	Year 2021
Mutations in <i>JAK2</i> and <i>Calreticulin</i> genes are associated with specific alterations of the immune system in myelofibrosis.	
Authors: Romano M,Sollazzo D,Trabanelli S,Barone M,Polverelli N,Perricone M,Forte D,Luatti S,Cavo M,Vianelli N,Jandus C,Palandri F,Catani L	
The Journal of allergy and clinical immunology	Year 2019
Blockade of TNF receptor superfamily 1 (TNFR1)-dependent and TNFR1-independent cell death is crucial for normal epidermal differentiation.	
Authors: Piao X,Miura R,Miyake S,Komazawa-Sakon S,Koike M,Shindo R,Takeda J,Hasegawa A,Abe R,Nishiyama C,Mikami T,Yagita H,Uchiyama Y,Nakano H	

[View more Misc references on thermofisher.cn](#)

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