

## ARG10194 anti-TNF alpha antibody [B1E4] (HRP)

Package: 100 µl

Store at: -20°C

### Summary

Product Description	HRP-conjugated Mouse Monoclonal antibody [B1E4] recognizes Human TNF-alpha
Tested Reactivity	Hu
Tested Application	ELISA
Host	Mouse
Clonality	Monoclonal
Clone	B1E4
Isotype	IgG1, kappa
Target Name	TNF alpha
Species	Human
Immunogen	Purified recombinant human TNF-α
Conjugation	HRP
Alternate Names	Tumor necrosis factor ligand superfamily member 2; DIF; Cachectin; ICD2; ICD1; N-terminal fragment; TNF-a; TNFA; TNFSF2; TNF-alpha; Tumor necrosis factor; NTF

### Application Instructions

Application Note	<p>ELISA: This HRP-conjugated monoclonal antibody can be used as a tracer/detection antibody in sandwich ELISA applications for human TNF-alpha detection in combination with capture antibody CH8820 (Cat. No.: ARG10001).</p> <p>* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.</p>
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### Properties

Form	Liquid
Purification	Protein G affinity purified
Buffer	0.01M PBS (pH 7.2) and 50% Glycerol
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Keep the antibody in the dark and keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

### Bioinformation

Database links	<a href="#">GeneID: 7124 Human</a>
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Gene Symbol	TNF
Gene Full Name	tumor necrosis factor
Background	<p>Tumor Necrosis Factor alpha (TNF-<math>\alpha</math>) is a multifunctional pro-inflammatory cytokine, mainly secreted by activated macrophages. TNF-<math>\alpha</math> was named for its remarkable ability to cause hemorrhagic necrosis of tumors in mice. It is implicated with a variety of biological procedures including systemic inflammation, cell proliferation, apoptosis, lipid metabolism, and coagulation. The pleiotropic attribute of TNF-<math>\alpha</math> regulation is associated with its ability to trigger multiple signalling pathways simultaneously. It is well documented that TNF-<math>\alpha</math> functions through its receptors, TNFR1 (p55) and TNFR2 (p75). TNF-<math>\alpha</math> not only contributes to the immune response to bacterial, fungal, viral and parasitic invasions, but also functions in tissue remodeling, autoimmune-diseases and the necrosis of specific tumors. TNF-<math>\alpha</math> hyper-expression in response to some bacterial components such as LPS can cause life threatening septic shock. Recombinant TNF-<math>\alpha</math>, in combination with chemotherapy, has been applied for treatment of soft sarcomas, melanomas and other irresectable tumors. Anti-TNF-<math>\alpha</math> therapy has been used for treatment of rheumatoid arthritis.</p>
Function	<p>Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR2. 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. Upregulates 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). The TNF intracellular domain (ICD) form induces IL12 production in dendritic cells. [UniProt]</p>
Highlight	<p>Related Antibody Duos and Panels: <a href="#">ARG30069 TNF alpha ELISA Antibody Duo</a> Related products: <a href="#">TNF alpha antibodies</a>; <a href="#">TNF alpha ELISA Kits</a>; <a href="#">TNF alpha Duos / Panels</a>; <a href="#">TNF alpha recombinant proteins</a>; <a href="#">Anti-Mouse IgG secondary antibodies</a>; Related news: <a href="#">HMGB1 in inflammation</a> <a href="#">Inflammatory Cytokines</a></p>
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Immune System antibody; Metabolism antibody; Signaling Transduction antibody
Calculated Mw	26 kDa
PTM	<p>The soluble form derives from the membrane form by proteolytic processing. The membrane-bound form is further proteolytically processed by SPPL2A or SPPL2B through regulated intramembrane proteolysis producing TNF intracellular domains (ICD1 and ICD2) released in the cytosol and TNF C-domain 1 and C-domain 2 secreted into the extracellular space.</p> <p>The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1. O-glycosylated; glycans contain galactose, N-acetylgalactosamine and N-acetylneuraminic acid.</p>