

## ARG10001 anti-TNF alpha antibody [CH8820]

Package: 100 µg  
Store at: -20°C

### Summary

Product Description	Mouse Monoclonal antibody [CH8820] recognizes TNF alpha
Tested Reactivity	Hu
Tested Application	ELISA, IHC-P, Neut
Host	Mouse
Clonality	Monoclonal
Clone	CH8820
Isotype	IgG1, kappa
Target Name	TNF alpha
Species	Human
Immunogen	Purified recombinant human TNF alpha.
Conjugation	Un-conjugated
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 table	Application	Dilution
	ELISA	Assay-dependent
	IHC-P	10 µg/ml
	Neut	1 µg antibody for 2-5 ng of recombinant TNF-alpha
Application Note	<p>ELISA: This antibody can be used as a capture antibody in sandwich ELISA in combination with a tracer/detection antibody (Cat. ARG10194 anti-TNF alpha antibody [B1E4] (HRP)).</p> <p>Neutralizing: This antibody can neutralize TNF-alpha activity in vitro. Suggest use 2-5 ng of recombinant TNF-alpha per µg of mAb.</p> <p>IHC: The antibody can react with formalin-fixed paraffin-embedded tissues. It showed strong reaction with normal kidney, liver with cirrhosis, and normal lung samples, and positive reaction with lung cancer samples at 10µg/mL antibody concentration.</p> <p>* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.</p>	
Positive Control	IHC-P: normal kidney, liver with cirrhosis, and normal lung samples	

### Properties

Form	Liquid
Purification	Protein G affinity purified
Buffer	0.01M PBS (pH 7.0)

Concentration	1 mg/ml
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 or below. Storage in frost free freezers is not recommended. 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> <a href="#">Swiss-port # P01375 Human</a>
Gene Symbol	TNF
Gene Full Name	tumor necrosis factor
Background	This gene encodes a multifunctional proinflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily. This cytokine is mainly secreted by macrophages. It can bind to, and thus functions through its receptors TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. This cytokine is involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. This cytokine has been implicated in a variety of diseases, including autoimmune diseases, insulin resistance, and cancer. Knockout studies in mice also suggested the neuroprotective function of this cytokine. [provided by RefSeq, Jul 2008]
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. 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]
Highlight	<p>Related Antibody Duos and Panels:  <a href="#">ARG30069 TNF alpha ELISA Antibody Duo</a></p> <p>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>;</p> <p>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>