

## ARG23228 anti-TNF alpha antibody [MP9-20A4] (azide free)

Package: 250 µg

Store at: -20°C

### Summary

Product Description	Azide free Rat Monoclonal antibody [MP9-20A4] recognizes TNF alpha Rat anti Human TNF alpha antibody, clone MP9-20A4 recognizes human tumor Necrosis Factor - alpha (TNF alpha), also known as TNFSF2. This ~17kDa cytokine is expressed by activated macrophages, monocytes, neutrophils, T cells and NK cells. Rat anti Human TNF alpha antibody, clone MP9-20A4 is reported to act as a blocking antibody (Abrams et al. 2001).
Tested Reactivity	Hu
Tested Application	ELISA, FACS, FuncSt, IHC-Fr
Host	Rat
Clonality	Monoclonal
Clone	MP9-20A4
Isotype	IgG1
Target Name	TNF alpha
Species	Human
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	5 - 10 µg/ml
	FACS	Assay-dependent
	FuncSt	Assay-dependent
	IHC-Fr	Assay-dependent
Application Note	FACS: Membrane permeabilisation is required for this application. Use 10 µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100 µl. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

### Properties

Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS.
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

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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	<p>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. 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.</p> <p>The TNF intracellular domain (ICD) form induces IL12 production in dendritic cells. [UniProt]</p>
Highlight	<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-Rat IgG secondary antibodies</a>;</p> <p>Related news: <a href="#">HMGB1 in inflammation</a> <a href="#">Inflammatory Cytokines</a></p>
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.</p> <p>O-glycosylated; glycans contain galactose, N-acetylgalactosamine and N-acetylneuraminic acid. [UniProt]</p>