

ARG23714 anti-TNF alpha antibody [4C6-H6]

Package: 500 µl

Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [4C6-H6] recognizes TNF alpha. The antibody recognizes human Tumor necrosis factor, also known as TNF alpha, Cachectin or Tumor necrosis factor ligand superfamily member 2. TNF α is a 233 amino acid ~22kDa type II transmembrane protein with a single potential glycosylation site (Uniprot P01375: Takakura-Yamamoto et al. 1996). Mouse anti Human TNF alpha antibody clone 4C6-H6 has been used successfully for the demonstration of TNF α expression in formalin fixed, paraffin embedded bone marrow biopsies from patients with Myelodysplastic syndrome (Molnár et al. 2000) ant has been used for evaluating the increase in TNF α expression seen in peripheral blood mononuclear cells from patients suffering from the autoinnmuse condition, Graves disease (Quadbeck et al. 2006).
Tested Reactivity	Hu
Tested Application	ELISA, FACS, IHC-P, IP
Host	Mouse
Clonality	Monoclonal
Clone	4C6-H6
Isotype	IgM
Target Name	TNF alpha
Species	Human
Immunogen	Thyroglobulin-linked synthetic peptide around aa. 115-130 of 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	1:2 - 1:10
	FACS	Neat
	IHC-P	Assay-dependent
	IP	Assay-dependent
Application Note	FACS: Membrane permeabilization is required for this application. Use 10 µl of the suggested working dilution to label 10 ⁶ 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
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Purification	Unpurified.
Buffer	Tissue culture supernatant, 0.2M Tris/HCl (pH7.4), 5-10% foetal calf serum and 0.09% Sodium azide.
Preservative	0.09% Sodium azide
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

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. 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. The TNF intracellular domain (ICD) form induces IL12 production in dendritic cells. [UniProt]
Highlight	Related products: TNF alpha antibodies ; TNF alpha ELISA Kits ; TNF alpha Duos / Panels ; TNF alpha recombinant proteins ; Anti-Mouse IgM secondary antibodies ; Related news: HMGB1 in inflammation Inflammatory Cytokines
Calculated Mw	26 kDa
PTM	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. 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. [UniProt]