

## Product datasheet

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# ARG10124 anti-TNF alpha antibody [1D9]

Package: 100 μg, 50 μg

Store at: -20°C

#### Summary

Product Description Mouse Monoclonal antibody [1D9] recognizes TNF alpha

Tested Reactivity Hu

Tested Application IHC-P, Neut

Host Mouse

**Clonality** Monoclonal

Clone 1D9

Isotype IgG1

Target Name TNF alpha
Species Human

Immunogen human recombinant tumor necrosis factor of alpha type.

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 Note The clone 1D9 inhibit biological activity of TNF-alpha.

\* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations

should be determined by the scientist.

#### **Properties**

Form Liquid

Purification Protein A affinity purified.

Buffer PBS (pH 7.4) and 0.1% Sodium azide

Preservative 0.1% Sodium azide

Concentration 1.0-2.0 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 GenelD: 7124 Human

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#### Swiss-port # P01375 Human

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/TNFBR. 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/TNFBR. 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]

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proteins; Anti-Mouse IgG secondary antibodies;

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antibody; Signaling Transduction antibody

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.