

**TNF-alpha (Tumor Necrosis Factor alpha) Antibody - With BSA and Azide**  
**Mouse Monoclonal Antibody [Clone J2D10 ]**  
**Catalog # AH12435**

**Specification**

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**TNF-alpha (Tumor Necrosis Factor alpha) Antibody - With BSA and Azide - Product Information**

|                   |                                               |
|-------------------|-----------------------------------------------|
| Application       | IF, FC                                        |
| Primary Accession | <a href="#">P01375</a>                        |
| Other Accession   | <a href="#">7124</a> , <a href="#">241570</a> |
| Reactivity        | Human                                         |
| Host              | Mouse                                         |
| Clonality         | Monoclonal                                    |
| Isotype           | Mouse / IgG1, kappa                           |
| Calculated MW     | 17kDa KDa                                     |

**TNF-alpha (Tumor Necrosis Factor alpha) Antibody - With BSA and Azide - Additional Information**

**Gene ID** 7124

**Other Names**

Tumor necrosis factor, Cachectin, TNF-alpha, Tumor necrosis factor ligand superfamily member 2, TNF-a, Tumor necrosis factor, membrane form, N-terminal fragment, NTF, Intracellular domain 1, ICD1, Intracellular domain 2, ICD2, C-domain 1, C-domain 2, Tumor necrosis factor, soluble form, TNF, TNFA, TNFSF2

**Application Note**

IF~~1:50~200  
FC~~1:10~50

**Storage**

Store at 2 to 8°C. Antibody is stable for 24 months.

**Precautions**

TNF-alpha (Tumor Necrosis Factor alpha) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

**TNF-alpha (Tumor Necrosis Factor alpha) Antibody - With BSA and Azide - Protein Information**

**Name** TNF

**Synonyms** TNFA, TNFSF2

**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. Up-regulates 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:<a href="http://www.uniprot.org/citations/23396208" target="\_blank">23396208</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/16829952" target="\_blank">16829952</a>, PubMed:<a href="http://www.uniprot.org/citations/22517918" target="\_blank">22517918</a>, PubMed:<a href="http://www.uniprot.org/citations/23396208" target="\_blank">23396208</a>). Induces insulin resistance in adipocytes via inhibition of insulin-induced IRS1 tyrosine phosphorylation and insulin-induced glucose uptake. Induces GKAP42 protein degradation in adipocytes which is partially responsible for TNF-induced insulin resistance (By similarity). Plays a role in angiogenesis by inducing VEGF production synergistically with IL1B and IL6 (PubMed:<a href="http://www.uniprot.org/citations/12794819" target="\_blank">12794819</a>). Promotes osteoclastogenesis and therefore mediates bone resorption (By similarity).

#### **Cellular Location**

Cell membrane; Single-pass type II membrane protein [Tumor necrosis factor, soluble form]: Secreted [C-domain 2]: Secreted.

### **TNF-alpha (Tumor Necrosis Factor alpha) Antibody - With BSA and Azide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **TNF-alpha (Tumor Necrosis Factor alpha) Antibody - With BSA and Azide - Images**

### **TNF-alpha (Tumor Necrosis Factor alpha) Antibody - With BSA and Azide - Background**

This antibody neutralises HurTNF-mediated cytotoxicity of L929 cells and inhibits tumour growth in mice. It protects mice against toxicity of HurTNF $\alpha$ . Tumor Necrosis Factor Alpha (TNF  $\alpha$ ) is a protein secreted by lipopolysaccharide-stimulated macrophages, and causes tumor necrosis when injected into tumor bearing mice. TNF  $\alpha$  is believed to mediate pathogenic shock and tissue injury associated with endotoxemia. TNF  $\alpha$  exists as a multimer of two, three, or five non-covalently linked units, but shows a single 17kDa band following SDS PAGE under non-reducing conditions. TNF  $\alpha$  is closely related to the 25kDa protein Tumor Necrosis Factor beta (lymphotoxin), sharing the same receptors and cellular actions. TNF  $\alpha$  causes cytolysis of certain transformed cells, being synergistic with interferon gamma in its cytotoxicity. Although it has little effect on many cultured normal human cells, TNF  $\alpha$  appears to be directly toxic to vascular endothelial cells. Other actions of TNF  $\alpha$  include stimulating growth of human fibroblasts and other cell lines, activating polymorphonuclear neutrophils and osteoclasts, and induction of interleukin 1, prostaglandin E2 and collagenase production.

### **TNF-alpha (Tumor Necrosis Factor alpha) Antibody - With BSA and Azide - References**

McLaughlin PJ; Elwood NJ; Russell SM; Andrew SM; McKenzie IF. Properties of monoclonal antibodies to human tumor necrosis factor alpha (TNF alpha). Anticancer Research, 1992, 12(4):1243-6. |  
McLaughlin PJ; Elwood NJ; Ramadi LT, Pica MR, McKenzie IF. Improvement in sensitivity of enzyme-linked immunosorbent assay for tumor necrosis factor. Immunol Cell Biol, 1990, 68:51-5