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

Specification

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

Application	**IF, FC**
Primary Accession	P01375
Other Accession	7124, 241570
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<br \>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/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. 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:23396208). 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:16829952, PubMed:22517918, PubMed:23396208). 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:12794819). 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 Cytomety
- 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 HurTNFamediated cytotoxicity of L929 cells and inhibits tumour growth in mice. It protects mice against toxicity of HurTNFa. 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