

**TNF Alpha Antibody (clone M 1 C4)**  
**Mouse Monoclonal Antibody**  
**Catalog # ALS14356****Specification**

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**TNF Alpha Antibody (clone M 1 C4) - Product Information**

Application	<b>WB, IHC</b>
Primary Accession	<a href="#">P01375</a>
Reactivity	<b>Human, Rat</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Calculated MW	<b>26kDa KDa</b>

**TNF Alpha Antibody (clone M 1 C4) - 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

**Target/Specificity**

Human TNF

**Reconstitution & Storage**

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

**Precautions**

TNF Alpha Antibody (clone M 1 C4) is for research use only and not for use in diagnostic or therapeutic procedures.

**TNF Alpha Antibody (clone M 1 C4) - 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

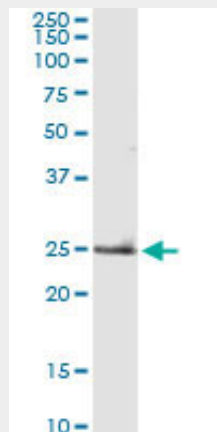
Cell membrane; Single-pass type II membrane protein [Tumor necrosis factor, soluble form]; Secreted [C-domain 2]: Secreted.

#### TNF Alpha Antibody (clone M 1 C4) - Protocols

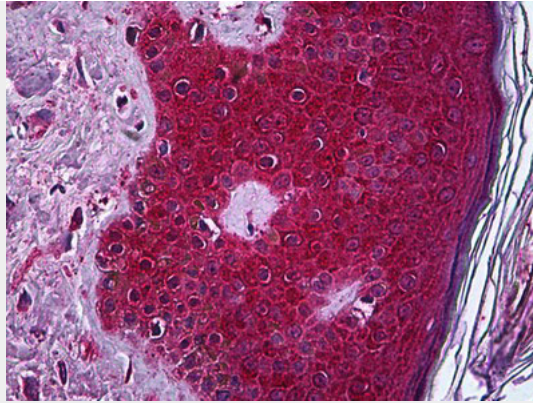
Provided below are standard protocols that you may find useful for product applications.

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

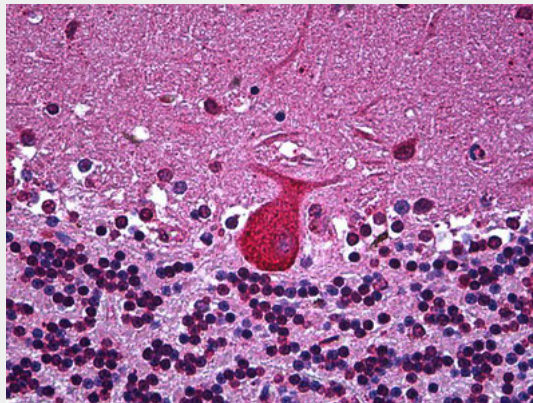
#### TNF Alpha Antibody (clone M 1 C4) - Images



TNF monoclonal antibody, ALS14356. Western blot of TNF expression in rat liver.



Anti-TNF Alpha antibody IHC of human skin.



Anti-TNF Alpha antibody IHC of human brain, cerebellum.

### **TNF Alpha Antibody (clone M 1 C4) - Background**

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.

### **TNF Alpha Antibody (clone M 1 C4) - References**

Nedospasov S.A., et al. Cold Spring Harb. Symp. Quant. Biol. 51:611-624(1986).  
Pennica D., et al. Nature 312:724-729(1984).  
Shirai T., et al. Nature 313:803-806(1985).  
Nedwin G.E., et al. Nucleic Acids Res. 13:6361-6373(1985).  
Wang A.M., et al. Science 228:149-154(1985).

### **TNF Alpha Antibody (clone M 1 C4) - Citations**

- [Monocyte chemoattractant protein 1 released from macrophages induced by hepatitis C virus promotes monocytes migration.](#)