

# TNF-Alpha Monoclonal Mouse Antibody (MAb1)

## Product Description

This MAb recognizes human 17-26 kDa protein, which is identified as cytokine TNF-alpha (Tumor Necrosis Factor-alpha). TNF-alpha can be expressed as a 17 kDa free molecule, or as a 26 kDa membrane protein. 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 17 kDa band following SDS PAGE under non-reducing conditions. TNF alpha is closely related to the 25 kDa 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 is currently being evaluated in treatment of certain cancers and AIDS Related Complex.

This antibody is available purified with BSA/azide at 200 ug/mL, or BSA/azide-free at 1 mg/mL.

## References

Note: References for this clone sold by other suppliers may be listed for expected applications.

1. Infection Immunity (1996) 64(12): 5403-5405. (ELISA)
2. Infection Immunity (2011) 79(1): 192-202. (neutralization)
3. Infection Immunity (2011) 79(8): 3338-3347. (neutralization)

Product attributes	
Antibody number	#0327
Antibody reactivity (target)	TNF-Alpha
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	MAb1
Isotype	IgM, kappa
Molecular weight	17 kDa
Synonyms	APC1; Cachectin; Differentiation inducing factor (DIF); Macrophage cytotoxic factor (MCF); Necrosin; TNF alpha; TNF Macrophage Derived; TNF Monocyte Derived; TNF Superfamily Member 2; TNFA; TNFSF2; Tumor necrosis factor ligand superfamily member 2; Tumor Necrosis Factor Precursor
Human gene symbol	TNF
Entrez gene ID	7124
SwissProt	P01375
Unigene	241570
Immunogen	Recombinant human TNF-alpha
Verified antibody applications	IHC (FFPE) (verified)
Antibody target cellular localization	Secreted (extracellular)
Species reactivity	Human
Expected antibody applications	ELISA (published for clone), Functional studies (published for clone)
Antibody application notes	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 1-2 ug/mL, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user
Positive control	HeLa, HL-60, or A431 cells. Macrophages in lymph node or Tonsil
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C, Note: store BSA-free antibodies at -10 to -35 °C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Antibody research areas	Cytokines, Immunology