

TNF-Alpha Monoclonal Mouse Antibody (J1D9)

Product Description

This antibody neutralizes TNF alpha biological activities. It prevents TNF alpha induced apoptosis in Jurkat cells. It also neutralizes HurTNF mediated cytotoxicity of L929 cells and inhibits tumor growth in mice. It protects mice against toxicity of HurTNF α . 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 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.

Primary antibodies are available purified, or with a selection of fluorescent CF $\text{\textcircled{R}}$ dyes and other labels. CF $\text{\textcircled{R}}$ dyes offer exceptional brightness and photostability. See the [CF \$\text{\textcircled{R}}\$ Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF $\text{\textcircled{R}}$ 405S and CF $\text{\textcircled{R}}$ 405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

Stock status: Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF $\text{\textcircled{R}}$ dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email order@biotium.com to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 0993, Anti-TNF-Alpha (J1D9)

Product attributes

Antibody number	#0993
Antibody reactivity (target)	TNF-Alpha
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	J1D9
Isotype	IgG1, kappa
Molecular weight	17 kDa
Synonyms	APC1; Cachectin; Differentiation inducing factor (DIF); Macrophage cytotoxic factor (MCF); Necrostatin; 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
Antibody target cellular localization	Secreted (extracellular)
Species reactivity	Human
Expected antibody applications	ELISA (published for clone), Functional studies (published for clone), IHC (FFPE) (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, Does not react with mouse; others not known
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 $^{\circ}$ C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 $^{\circ}$ 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
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (<i>Bos taurus</i>), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF $\text{\textcircled{R}}$ 405S	404/431	405	DAPI (microscopy), AF405	CF$\text{\textcircled{R}}$405S Features
BNC88	CF $\text{\textcircled{R}}$ 488A	490/515	488	GFP, FITC	CF$\text{\textcircled{R}}$488A Features
BNC68	CF $\text{\textcircled{R}}$ 568	562/583	532, 561	RFP, TRITC	CF$\text{\textcircled{R}}$568 Features
BNC94	CF $\text{\textcircled{R}}$ 594	593/614	561	Texas Red $\text{\textcircled{R}}$	CF$\text{\textcircled{R}}$594 Features
BNC40	CF $\text{\textcircled{R}}$ 640R	642/662	633-640	Cy $\text{\textcircled{R}}$ 5	CF$\text{\textcircled{R}}$640R Features
BNC47	CF $\text{\textcircled{R}}$ 647	650/665	633-640	Cy $\text{\textcircled{R}}$ 5	CF$\text{\textcircled{R}}$647 Features
BNC74	CF $\text{\textcircled{R}}$ 740	742/767	633-685	775/50	CF$\text{\textcircled{R}}$740 Features
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

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References

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

1. Immunol Cell Biol (1990) 68(1): 51-55. (ELISA)
2. Anticancer Research, 30 Jun 1992, 12(4):1243-1246. (functional studies)
3. Dig Dis Sci (2010) 55:617-625. (IHC, FFPE)