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TNF- α Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 17 mature. 25 precursor.	Source/Isotype: Rabbit	UniProt ID: #P01375	Entrez-Gene Id: 7124
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Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 1:25
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.	
Specificity/Sensitivity	TNF- α Antibody detects endogenous levels of mature TNF- α as well TNF- α precursor protein.	
Species predicted to react based on 100% sequence homology	Monkey, Pig	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly198 of human TNF- α protein. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	TNF- α , the prototypical member of the TNF protein superfamily, is a homotrimeric type-II membrane protein (1,2). Membrane-bound TNF- α is cleaved by the metalloprotease TACE/ADAM17 to generate a soluble homotrimer (2). Both membrane and soluble forms of TNF- α are biologically active. TNF- α is produced by a variety of immune cells including T cells, B cells, NK cells, and macrophages (1). Cellular response to TNF- α is mediated through interaction with receptors TNF-R1 and TNF-R2 and results in activation of pathways that favor both cell survival and apoptosis depending on the cell type and biological context. Activation of kinase pathways (including JNK, Erk1/2, p38 MAPK, and NF- κ B) promotes the survival of cells, while TNF- α -mediated activation of caspase-8 leads to programmed cell death (1,2). TNF- α plays a key regulatory role in inflammation and host defense against bacterial infection, notably <i>Mycobacterium tuberculosis</i> (3).	
Background References	<ol style="list-style-type: none"> 1. Aggarwal, B.B. (2003) <i>Nat Rev Immunol</i> 3, 745-56. 2. Hehlhans, T. and Pfeffer, K. (2005) <i>Immunology</i> 115, 1-20. 3. Lin, P.L. et al. (2007) <i>J Investig Dermatol Symp Proc</i> 12, 22-5. 	
Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).	
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.	
Applications Key	W: Western Blotting IP: Immunoprecipitation	
Cross-Reactivity Key	H: Human M: Mouse	
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