

Recombinant Human Tumor Necrosis Factor- α (TNF- α)

Publication Number MAN0003409








Rev. 2.00







Catalog Number:	PHC3015L (Liquid Format)
Quantity:	10 μ g
Lot Number:	See product label.
Concentration:	See product label.
Molecular Weight:	17.5 kDa
Purity:	>95% as determined by SDS-PAGE analysis.
Biological Activity:	ED ₅₀ range = 0.02–0.05 ng/mL, determined by the dose dependent cytotoxic effect on L929 cells in the presence of actinomycin D.
Formulation:	200 μ g/mL in 10 mM sodium phosphate, pH 7.2, 150 mM NaCl, 0.5% BSA.
Sterility:	Filtered through a 0.22 micron sterile filter.
Endotoxin:	<0.1 ng/ μ g
Production:	Recombinant human TNF- α is produced in <i>E. coli</i> and purified via sequential chromatography.
Reconstitution Recommendation:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Further dilutions should be made in low endotoxin medium or a buffered solution containing a carrier protein such as heat inactivated FCS or tissue culture grade BSA.
Suggested Working Dilutions:	The optimal concentration should be determined for each specific application.
Storage:	Store the liquid human TNF- α at $\leq -20^{\circ}\text{C}$. Upon thawing, apportion into working aliquots and store at $\leq -20^{\circ}\text{C}$. Avoid repeated freeze/thaw cycles.
Expiration Date:	Expires one year from date of receipt when stored as instructed.
References:	<p>Aggarwal, B.B., W.J. Kohr, P.E. Hass, B. Moffat, S.A. Spencer, W.J. Henzel, T.S. Bringman, G.E. Nedwin, D.V. Goeddel, and R.N. Harkins (1984) Human tumor necrosis factor production, purification and characterization. <i>J. Biol. Chem.</i> 260:2345–2354.</p> <p>Chew, L.J., H.G. Pan, J.Y. Yu, S. Tian, W.Q. Huang, J.Y. Zhang, S. Pang, and L.Y. Li (2002) A novel secreted splice variant of vascular endothelial cell growth inhibitor. <i>FASEB J.</i> 16:742–744.</p> <p>Cignetti, A., E. Bryant, B. Allione, A. Vitale, R. Foa, and M.A. Cheever (1999) CD34(+) acute myeloid and lymphoid leukemic blasts can be induced to differentiate into dendritic cells. <i>Blood</i> 94(6):2048–2055.</p> <p>Kim, S.G., K.A. Soltysiak, Z.-G. Gao, T.-S. Chang, E.J. Chung, and K.A. Jacobson (2003) Tumor necrosis factor alpha-induced apoptosis in astrocytes is prevented by the activation of P2Y(6), but not P2Y(4) nucleotide receptors. <i>Biochem. Pharmacol.</i> 65(6):923–931.</p> <p>Kim, S.G., Z.-G. Gao, K.A. Soltysiak, T.-S. Chang, C. Brodie, and K.A. Jacobson (2003) P2Y6 nucleotide receptor activates PKC to protect 1321N1 astrocytoma cells against tumor necrosis factor-induced apoptosis. <i>Cell. Mol. Neurobiol.</i> 23(3):401–418.</p> <p>Kruszynski, M., D.J. Shealy, A.O. Leone, and G.A. Heavner (1999) Identification of TNF-α binding peptides from a D-amino acid hexapeptide library that specifically inhibit TNF-α binding to recombinant p55 receptor. <i>Cytokine</i> 11(1):37–44.</p> <p>Mazanet, M.M., K. Neote, and C.C.W. Hughes (2000) Expression of IFN-inducible T cell chemoattractant by human endothelial cells is cyclosporin A-resistant and promotes T cells adhesion: implications for cyclosporine A-resistant immune inflammation. <i>J. Immunol.</i> 164:5383–5388.</p> <p>Means, T.K., B.W. Jones, A.B. Schromm, B.A. Shurtleff, J.A. Smith, J. Keane, D.T. Golenbock, S.N. Vogel, and M.J. Fenton (2001) Differential effects of a toll-like receptor antagonist on Mycobacterium tuberculosis-induced macrophage responses. <i>J. Immunol.</i> 166 6:4074–4082.</p> <p>Nixon, C.S., M.J. Steffen, and J.L. Ebersole (2000) Cytokine responses to Treponema pectinovorum and Treponema denticola in human gingival fibroblasts. <i>Infect and Immun.</i> 68(9):5284–5292.</p>

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Explanation of Symbols

The symbols present on the product label are explained below:

Symbol	Description
	Catalog Number
	Research Use Only
	Use by
	Manufacturer
	Without, does not contain
	Protect from light
	Directs the user to consult instructions for use (IFU), accompanying the product.

Symbol	Description
	Batch code
	In vitro diagnostic medical device
	Temperature limitation
	European Community authorized representative
	With, contains
	Consult accompanying documents

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