**DESCRIPTION**

**Species Reactivity**  
Human

**Specificity**  
Detects human TNF-α in direct ELISAs and Western blots. In direct ELISAs, approximately 25-50% cross-reactivity with recombinant porcine TNF-α and recombinant rhesus macaque TNF-α is observed but no cross-reactivity with recombinant cotton rat TNF-α, recombinant rat TNF-α, recombinant human (rh) LTα1/β2, rhLTα2/β1, rhAPRIL, rhBAFF, rhEDA-A2, recombinant mouse EDA, rhFas Ligand, rhLIGHT, rhOX40 Ligand, rhTRAIL, rhTRANCE, rhTWEAK, or rhVEGI is observed.

**Source**  
Monoclonal Mouse IgG, Clone # 6401

**Purification**  
Protein A or G purified from ascites

**Immunogen**  
E. coli-derived recombinant human TNF-α Gly57-Leu233 (predicted)  
Accession # P01375

**Endotoxin Level**  
<0.10 EU per 1 μg of the antibody by the LAL method.

**Formulation**  
Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

*Small pack size (SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

**APPLICATIONS**

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

**Neutralization**  
Measured by its ability to neutralize TNF-α-induced cytotoxicity in the L-929 mouse fibroblast cell line. Matthews, N. and M.L. Neale (1987) in Lymphokines and Interferons, A Practical Approach. Clemens, M.J. et al. (eds): IRL Press. 221. The Neutralization Dose ($ND_{50}$) is typically 0.015-0.06 μg/mL in the presence of 0.25 ng/mL Recombinant Human TNF-α and 1 μg/mL actinomycin D.

**DATA**

Neutralization Cytotoxicity Induced by TNF-α and Neutralization by Human TNF-α Antibody. Recombinant Human TNF-α (Catalog # 210-<TA>) induces cytotoxicity in the L-929 mouse fibroblast cell line in a dose-dependent manner (orange line). Cytotoxicity elicited by Recombinant Human TNF-α (0.25 ng/mL) is neutralized (green line) by increasing concentrations of human TNF-α Monoclonal Antibody (Catalog # MAB2101). The $ND_{50}$ is typically 0.015-0.06 μg/mL in the presence of the metabolic inhibitor actinomycin D (1 μg/mL).

**PREPARATION AND STORAGE**

**Reconstitution**  
Reconstitute at 0.5 mg/mL in sterile PBS.

**Shipping**  
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.  
*Small pack size (SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

**Stability & Storage**  
Use a manual defrost freezer and avoid repeated freeze-thaw cycles.  
- 12 months from date of receipt, -20 to -70 °C as supplied.  
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.  
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

**BACKGROUND**

TNF-α is a trimeric glycoprotein active in both membrane bound and secreted forms. TNF-α is produced by several lymphoid cells as well as by astrocytes, endothelial cells, and smooth muscle cells. TNF-α binds to TNF RI and TNF RII present on virtually all cell types where it triggers the activation of multiple signal transduction pathways and modulates the expression of a wide variety of genes.

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