Human TNF-α Antibody

Recombinant Monoclonal Mouse IgG_1 Clone # 6401R

Catalog Number: MAB2101R

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	Recombinant Monoclonal Mouse IgG_1 Clone # 6401R
Purification	Protein A or G purified from cell culture supernatant
Immunogen	*E. coli*-derived recombinant human TNF-α Gly57-Leu233 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.

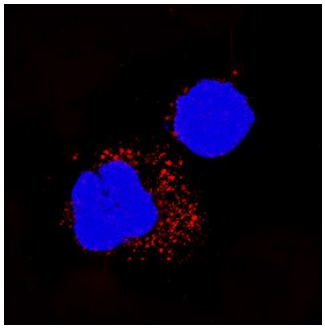
APPLICATIONS

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.*

	Recommended Concentration	Sample
Immunocytochemistry	3-25 µg/mL	See Below
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 0.01-0.06 µg/mL in the presence of 0.75 ng/mL Recombinant Human TNF-α and 0.5 µg/mL actinomycin D	

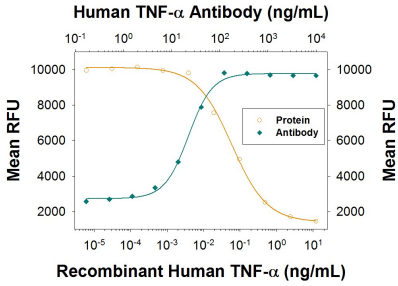
DATA

Immunocytochemistry



TNF-α in Human PBMCs. TNF-α was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) using Recombinant Mouse Anti-Human TNF-α Monoclonal Antibody (Catalog # MAB2101R) at 3 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

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 (0.75 ng/mL) is neutralized (green line) by increasing concentrations of Recombinant Human TNF-α Monoclonal Antibody (Catalog # MAB2101R). The ND_{50} is typically 0.01-0.06 µg/mL in the presence of the metabolic inhibitor actinomycin D (0.5 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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