Human TNF-α Antibody

Recombinant Monoclonal Rabbit IgG Clone # 2342C
Catalog Number: MAB2103

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TNF-α in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2342C
Purification	Protein A or G purified from cell culture supernatant
Immunogen	*E. coli*-derived recombinant human TNF-α Val77-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.

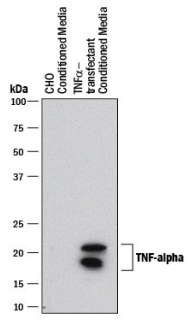
APPLICATIONS

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
Western Blot	2 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 1-10 ng/mL in the presence of 0.25 ng/mL Recombinant Human TNF-α and actinomycin D.	

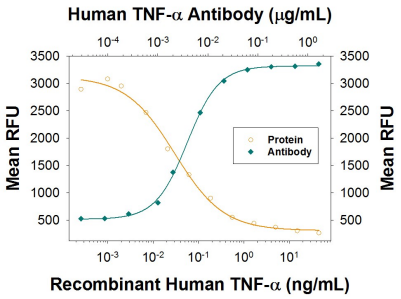
DATA

Western Blot



Detection of Human TNF-α by Western Blot. Western blot shows conditioned media from CHO Chinese hamster ovary cell line either mock transfected or transfected with human TNF- alpha. PVDF membrane was probed with 2 µg/mL of Rabbit Anti-Human TNF-α Monoclonal Antibody (Catalog # MAB2103) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). Specific bands were detected for TNF-α at approximately 18 and 21 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Neutralization



Cytotoxicity Induced by TNF-α and Neutralization by Human TNF-α Antibody. Recombinant Human TNF-α (Catalog # 210-TA) induces cytotoxicity in the the L-929 mouse fibroblast cell line in a dose-dependent manner (orange line), as measured by Resazurin (Catalog # AR002). Cytotoxicity elicited by Recombinant Human TNF-α (0.25 ng/mL) is neutralized (green line) by increasing concentrations of Mouse Anti-Human TNF-α Monoclonal Antibody (Catalog # MAB2103). The ND_{50} is typically 1-10 ng/mL in the presence of the metabolic inhibitor actinomycin D.

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, designated TNFSF2, 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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