

Product Data Sheet

Purified anti-human TNF- α

Catalog # / Size: 502901 / 50 μ g
502902 / 500 μ g

Clone: MAb11

Isotype: Mouse IgG1, κ

Immunogen: *E. coli*-expressed, recombinant human TNF- α

Reactivity: Human, **Cross-Reactivity:** Chimpanzee, Baboon, Cynomolgus, Rhesus, Pigtailed Macaque, Sooty Mangabey, Swine (Pig, Porcine)

Preparation: The antibody was purified by affinity chromatography.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C.

Applications:

Applications: ELISA - *Quality tested*
ICFC, ICC, IHC - *Reported in the literature*
CyTOF® - *Validated*

Recommended Usage: Each lot of this antibody is quality control tested by ELISA assay. For ELISA capture applications, a concentration range of 0.25-1 μ g/ml is recommended. To obtain a linear standard curve, serial dilutions of TNF- α recombinant protein ranging from 500 to 4 pg/ml are recommended for each ELISA plate. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: **ELISA or ELISPOT Detection:** The biotinylated MAb11 antibody is useful as the detection antibody in a sandwich ELISA or ELISPOT, when used in conjunction with the purified MAb1 antibody (Cat. No. 502802/502804) as the capture antibody.

Flow Cytometry^{3,5,6}: The fluorochrome-labeled MAb11 antibody is useful for intracellular immunofluorescent staining and flow cytometric analysis to identify TNF- α -producing cells within mixed cell populations.

Additional reported applications (for the relevant formats) include: neutralization^{1,2}, immunohistochemical staining of paraformaldehyde-fixed, saponin-treated frozen tissue sections⁴ and acetone-fixed frozen tissue sections⁸, and immunocytochemistry⁷. The MAb11 antibody can neutralize the bioactivity of natural or recombinant TNF- α .

Note: For testing human TNF- α in serum or plasma, BioLegend's ELISA Max™ Sets (Cat. No. 430201 to 430206) are specially developed and recommended. The LEAF™ purified antibody (Endotoxin <0.1 EU/ μ g, Azide-Free, 0.2 μ m filtered) is recommended for neutralization of human TNF- α bioactivity (Cat. No. 502922).

Application References:

1. Rathjen D, *et al.* 1991. *Mol. Immunol.* 28:79. (Neut)
2. Danis V, *et al.* 1991. *Clin. Exp. Immunol.* 85:143. (Neut)
3. Enrquez J, *et al.* 2002. *Adv. Perit. Dial.* 18:177. (ICFC)
4. Andersson U, *et al.* 1999. *Detection and quantification of gene expression*. New York:Springer-Verlag. (IHC)
5. Chen H, *et al.* 2005. *J. Immunol.* 175:591. (ICFC)
6. Iwamoto S, *et al.* 2007. *J. Immunol.* 179:1449. (ICFC) PubMed
7. Andersson U, *et al.* 2000. *J. Exp. Med.* 192:565. (ICC)
8. Moormann AM, *et al.* 1999. *J. Infect. Dis.* 180:1987. (IHC)

Description: TNF- α is secreted by macrophages, monocytes, neutrophils, T cells (principally CD4⁺), and NK cells. Many transformed cell lines also secrete TNF- α . Monomeric human TNF- α is a 157 amino acid protein (non-glycosylated) with a reported molecular weight of 17 kD. TNF- α forms multimeric complexes; stable trimers are most common in solution. A 26 kD membrane form of TNF- α has also been described. TNF- α binding to surface receptors elicits a wide array of biological activities including: cytolysis and cytosolysis of many tumor cell lines *in vitro*, hemorrhagic necrosis of tumors *in vivo*, increased fibroblast proliferation, and enhanced chemotaxis and phagocytosis in neutrophils.

Antigen References:

1. Fitzgerald K, *et al.* Eds. 2001. *The Cytokine FactsBook*. Academic Press, San Diego.
2. Beutler B, *et al.* 1988. *Annu. Rev. Biochem.* 57:505.
3. Beutler B, *et al.* 1989. *Annu. Rev. Immunol.* 7:625.
4. Tracey K, *et al.* 1993. *Crit. Care Med.* 21:S415.

Related Products:	Product	Clone	Application
	Purified anti-human TNF- α	MAb1	ELISA Capture, WB



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