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Product Data Sheet

PE/Cy7 anti-human TNF-α

Catalog # / Size: 502929 / 25 tests
502930 / 100 tests

Clone: MAb11

Isotype: Mouse IgG1, κ

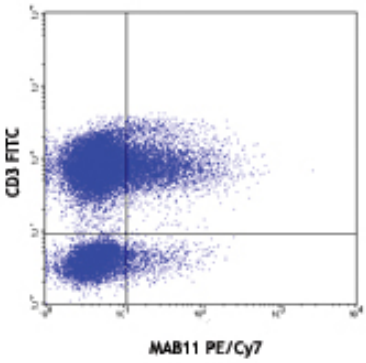
Immunogen: *E. coli*-expressed, recombinant human TNF-α

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

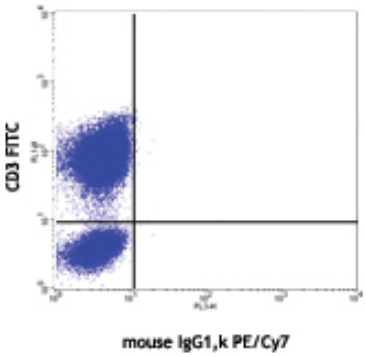
Preparation: The antibody was purified by affinity chromatography, and conjugated with PE/Cy7 under optimal conditions. The solution is free of unconjugated PE/Cy7 and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



PMA+ionomycin-stimulated (6 hours) peripheral blood lymphocytes surface stained with CD3 FITC, then intracellularly stained with MAB11 PE/Cy7 (top) or mouse IgG1,k PE/Cy7 isotype control (bottom)



Applications:

Applications: ICFC - *Quality tested*

Recommended Usage: Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 µl to 5 µl per test**. Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 µl staining volume or per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. Read more at www.biolegend.com/testsize regarding the test size change.

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 sections[4] and acetone-fixed frozen tissue sections[8], and immunocytochemistry[7]. 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/µg, Azide-Free, 0.2 µm filtered) is recommended for neutralization of human TNF-α bioactivity (Cat. No. 502922).

Cy3, Cy5, Cy5.5 and Cy7 are subject to proprietary rights of GE Healthcare Bio-Sciences Corp. and Carnegie Mellon University and made and sold under license from GE Healthcare Bio-Sciences Corp. Sale of this product is licensed for research use only.

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. Enr quez 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 cytostasis of many tumor cell lines *in vitro*, hemorraghic

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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
PE/Cy7 Mouse IgG1, κ Isotype Ctrl	MOPC-21	FC, ICFC
Fixation Buffer		ICC, ICFC
Permeabilization Wash Buffer (10X)		ICC, ICFC, IHC
Brefeldin A Solution (1,000X)		ICFC
Monensin Solution (1,000X)		ICFC
Cell Staining Buffer		FC, ICC, ICFC
RBC Lysis Buffer (10X)		FC, ICFC

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