

PE/Dazzle™ 594 anti-human TNF-α

Catalog # / Size: 3114725 / 25 tests
3114730 / 100 tests

Clone: MAb11

Isotype: Mouse IgG1, κ

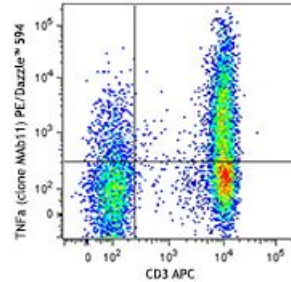
Immunogen: *E. coli*-expressed, recombinant human TNF-α

Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions. The solution is free of unconjugated PE/Dazzle™ 594 and unconjugated antibody.

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

Concentration: Lot-specific



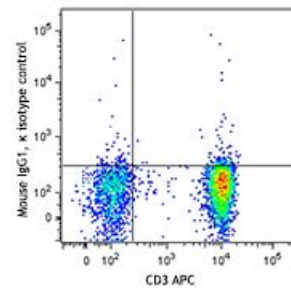
PMA+ionomycin stimulated (6 hours) human peripheral blood lymphocytes (in the presence of monensin) were stained with CD3 APC, fixed, permeabilized, and then stained with TNF-α (clone MAb11) PE/Dazzle™ 594 (top) or mouse IgG1, κ PE/Dazzl

Applications:

Applications: Intracellular Staining for Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.



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^{3,5,6,10}: The fluorochrome-labeled MAb11 antibody is useful for intracellular and membrane-bound 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, immunocytochemistry⁷, and immunofluorescence⁹. 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).

The Purified MAb1 antibody is useful in neutralization² and as the capture antibody in a sandwich ELISA or ELISPOT assay, when used in conjunction with the biotinylated MAb11 antibody (Cat. No. 502904/502914) as the detecting antibody.

- 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)
 9. Zhao XJ, *et al.* 2003. *J. Immunol.* 170:2923. (IF)
 10. Rieger R, *et al.* 2009. *Cancer Gene Ther.* 1:53-64. (FC)
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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*, 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.