

**Alexa Fluor® 700 anti-human TNF-α**

**Catalog # / Size:** 3114640 / 100 tests  
3114635 / 25 tests

**Clone:** MAb11

**Isotype:** Mouse IgG1, κ

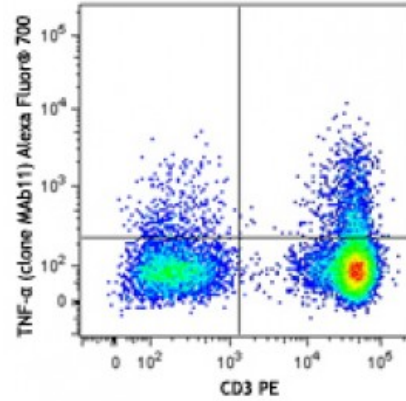
**Immunogen:** *E. coli*-expressed, recombinant human TNF-α

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 700 under optimal conditions.

**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 PE, then fixed, permeabilized and stained with TNF-α (clone MAb11) Alexa Fluor® 700 (top). The bottom dot plot shows the st

**Applications:**

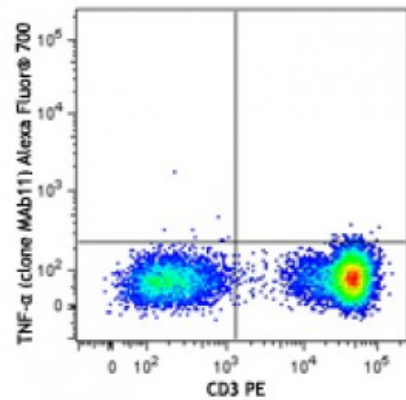
**Applications:** Flow Cytometry

**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.

\* Alexa Fluor® 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor® 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

**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<sup>3,5,6,10</sup>:** The fluorochrome-labeled MAb11 antibody is useful for intracellular and membrane-bound immunofluorescent staining and



flow cytometric analysis to identify TNF- $\alpha$ -producing cells within mixed cell populations.

**Additional reported applications (for the relevant formats) include:**

neutralization<sup>1,2</sup>, immunohistochemical staining of paraformaldehyde-fixed, saponin-treated frozen tissue sections<sup>4</sup> and acetone-fixed frozen tissue sections<sup>8</sup>, immunocytochemistry<sup>7</sup>, and immunofluorescence<sup>9</sup>. The MAb11 antibody can neutralize the bioactivity of natural or recombinant TNF- $\alpha$ .

**Note:** For testing human TNF- $\alpha$  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/ $\mu$ g, Azide-Free, 0.2  $\mu$ m filtered) is recommended for neutralization of human TNF- $\alpha$  bioactivity (Cat. No. 502922).

The Purified MAb11 antibody is useful in neutralization<sup>2</sup> 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- $\alpha$  is secreted by macrophages, monocytes, neutrophils, T cells (principally CD4<sup>+</sup>), and NK cells. Many transformed cell lines also secrete TNF- $\alpha$ . Monomeric human TNF- $\alpha$  is a 157 amino acid protein (non-glycosylated) with a reported molecular weight of 17 kD. TNF- $\alpha$  forms multimeric complexes; stable trimers are most common in solution. A 26 kD membrane form of TNF- $\alpha$  has also been described. TNF- $\alpha$  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.