

Product Data Sheet

Pacific Blue™ anti-human TNF-α

Catalog # / Size: 502920 / 100 µg

Clone: MAb11

Isotype: Mouse IgG1, κ

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

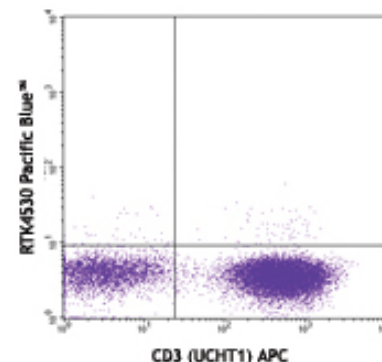
Reactivity: Human, **Cross-Reactivity:** Chimpanzee, Baboon, Cynomolgus, Rhesus, Pigtailed Macaque, Sooty Mangabey, Swine (Pig, Porcine)

Preparation: The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions. The solution is free of unconjugated Pacific Blue™.

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 and protected from prolonged exposure to light. **Do not freeze.**



PMA/ionomycin-stimulated (6 hours) human peripheral blood lymphocytes stained with mouse IgG1 Pacific Blue™ isotype control and CD3 (UCHT1) APC

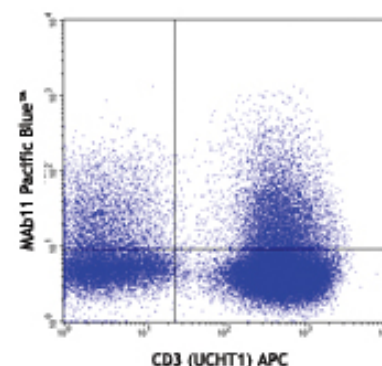
Applications:

Applications: ICFC - Quality tested

Recommended Usage: Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤ 0.5 µg per 10⁶ cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

** Pacific Blue™ is a registered trademark of Molecular Probes, Inc. Pacific Blue™ dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.



PMA/ionomycin-stimulated (6 hours) human peripheral blood lymphocytes stained with MAb11 Pacific Blue™ and CD3 (UCHT1) APC

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/µg, Azide-Free, 0.2 µm 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. 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



For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.



*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biollegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

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.
4. Tracey K, *et al.* 1993. *Crit. Care Med.* 21:S415.

Related Products:	Product	Clone	Application
	Cell Staining Buffer		FC, ICC, ICFC
	Fixation Buffer		ICC, ICFC
	Permeabilization Wash Buffer (10X)		ICC, ICFC, IHC
	Brefeldin A Solution (1,000X)		ICFC
	Monensin Solution (1,000X)		ICFC
	7-AAD Viability Staining Solution		FC
	Pacific Blue™ Mouse IgG1, κ Isotype Ctrl	MOPC-21	FC, ICFC



For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.



*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 9727 Pacific Heights Blvd, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587