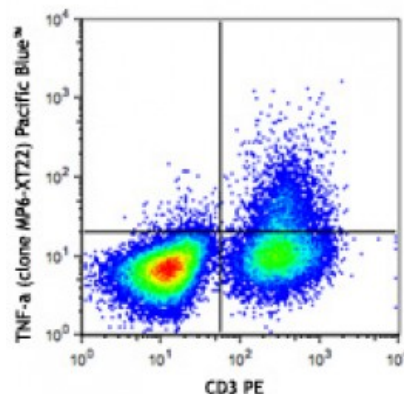


Pacific Blue™ anti-mouse TNF-α

Catalog # / Size:	3131590 / 100 µg
Clone:	MP6-XT22
Isotype:	Rat IgG1, κ
Immunogen:	<i>E. coli</i> -expressed, recombinant mouse TNF-α
Reactivity:	Mouse
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



PMA + Ionomycin-stimulated C57BL/6 mouse splenocytes (in the presence of monensin) were stained with CD3 PE, fixed, permeabilized and then stained with TNF-α (clone MP6-XT22) Pacific Blue™ (top) or rat IgG1, κ Pacific Blue™ isotype

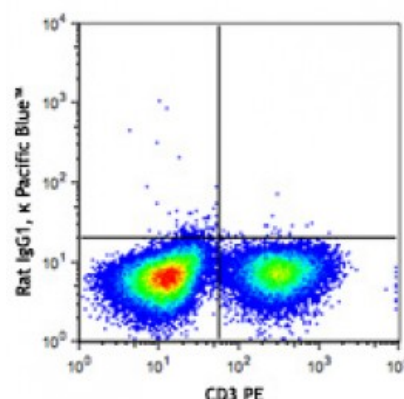
Applications:

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 ≤ 0.25 microg per 10 ⁶ cells in 100 microL 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.

Application Notes:	ELISA or ELISPOT Detection: The biotinylated MP6-XT22 antibody is useful as a detection antibody for a sandwich ELISA or ELISPOT assay, when used in conjunction with purified 6B8 antibody (Cat. No. 510802/510804) as the capture antibody.
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Flow Cytometry^{6,11,12}: The fluorochrome-labeled MP6-XT22 antibody is useful for intracellular immunofluorescent staining and flow cytometric analysis to identify TNF-α-



producing cells within mixed cell populations.

Neutralization^{1,5,10,16,17}: The MP6-XT22 antibody can neutralize the bioactivity of natural or recombinant TNF- α . The LEAF[™] purified antibody (Endotoxin <0.1 EU/ μ g, Azide-Free, 0.2 μ m filtered) is recommended for neutralization of mouse TNF- α bioactivity *in vivo* and *in vitro* (Cat. No. 506310). For *in vivo* studies or highly sensitive assays, we recommend Ultra-LEAF[™] purified antibody (Cat. No. 506332) with a lower endotoxin limit than standard LEAF[™] purified antibodies (Endotoxin <0.01 EU/microg).

Additional reported applications (for the relevant formats) include: Western blotting, immunohistochemical staining of paraformaldehyde-fixed, saponin-treated frozen tissue sections⁷⁻⁹, *in vivo* detection⁵, immunofluorescence, and immunocytochemistry.

Note: For testing mouse TNF- α in serum, plasma or supernatant, BioLegend's ELISA Max[™] Sets (Cat. No. 430901 to 430906) are specially developed and recommended.

- Application References:**
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 2. Abrams J, *et al.* 1995. *Curr. Prot. Immunol.* John Wiley and Sons, New York. Unit 6.20
 3. Mo X, *et al.* 1995. *J. Virol.* 69:1288.
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 5. Via C, *et al.* 2001. *J. Immunol.* 167:6821. (Neut)
 6. Infante-Duarte C, *et al.* 2000 *J. Immunol.* 165:6107. (FC)
 7. Jacobs M, *et al.* 2000. *Immunology* 100:494. (IHC)
 8. Marinova-Mutachieva L, *et al.* 1997. *Clin. Exp. Immunol.* 107:507. (IHC)
 9. Williams RO, *et al.* 2000. *J. Immunol.* 165:7240. (IHC)
 10. Scanga CA, *et al.* 1999. *Infect. Immun.* 67:4531. (Neut)
 11. Akilov OE, *et al.* 2007. *J. Leukoc. Biol.* 2007;10.1189/jlb.0706439. (FC)
 12. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366. (FC)
 13. Patole PS, *et al.* 2005. *J. Am. Soc. Nephrol.* 16:3273. [PubMed](#)
 14. Wu S, *et al.* 2005. *Neurosci Lett.* 394:158. [PubMed](#)
 15. Carlson MJ, *et al.* 2009. *Blood* 113:1365. [PubMed](#)

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 mouse TNF- α is a 156 amino acid protein (N-glycosylated) with a reported molecular weight of 17.5 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 biologic 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.