

Product Data Sheet

FITC anti-mouse TNF- α

Catalog # / Size: 506303 / 25 μ g
506304 / 100 μ g

Clone: MP6-XT22

Isotype: Rat IgG1, κ

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

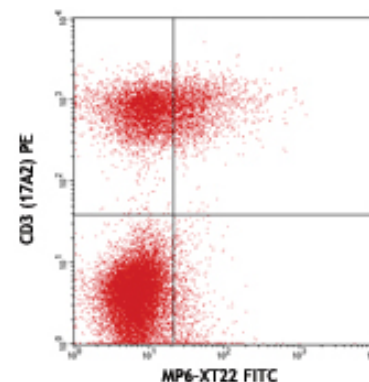
Reactivity: Mouse

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

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 (6hrs)
C57BL/6 mouse splenocytes
surface-stained with CD3 (17A2) PE
and intracellularly stained with
MP6-XT22 FITC

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 $\leq 0.25 \mu$ g per 10^6 cells in 100 μ l volume. It is recommended that the reagent be titrated for optimal performance for each application.

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.

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. To view the intracellular cytokine staining protocol, please visit www.biolegend.com and click on the support section.

Neutralization^{1,5,10}: 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/ μ g).

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:

1. Abrams J, *et al.* 1992. *Immunol. Rev.* 127:5. (Neut)
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.
4. Sarawar S, *et al.* 1994. *J. Immunol.* 153:1246.
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 cytotaxis of many tumor cell lines *in vitro*, hemorrhagic necrosis of tumors *in vivo*, increased fibroblast proliferation, and enhanced chemotaxis and phagocytosis in



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.

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
	RBC Lysis Buffer (10X)		FC, ICFC
	FITC Rat IgG1, κ Isotype Ctrl	RTK2071	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.