

Product Data Sheet

PE/Cy7 anti-mouse TNF- α

Catalog # / Size: 506323 / 25 μ g
506324 / 100 μ g

Clone: MP6-XT22

Isotype: Rat IgG1, κ

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

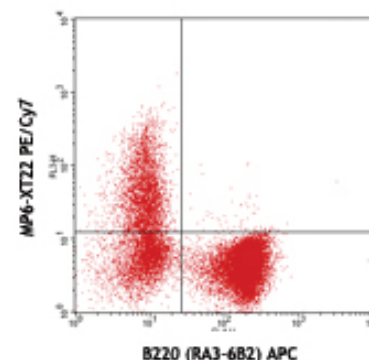
Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography, and conjugated with PE/Cy7 under optimal conditions. The solution is free of unconjugated PE/Cy7 and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.2 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 stained
with B220 (RA3-6B2) APC and
MP6-XT22 PE/Cy7

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 ≤ 0.25 μ g per million 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.

Cy3, Cy5, Cy5.5 and Cy7 are subject to proprietary rights of GE Healthcare Bio-Sciences Corp. and Carnegie Mellon University and made and sold under license from GE Healthcare Bio-Sciences Corp. Sale of this product is licensed for research use only.

- 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



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

Related Products:	Product	Clone	Application
	PE/Cy7 Rat IgG1, κ Isotype Ctrl	RTK2071	FC, ICFC
	Cell Staining Buffer		FC, ICC, ICFC
	RBC Lysis Buffer (10X)		FC, ICFC



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