SONY

Product Data Sheet

Purified anti-mouse TNF-α

Catalog # / Size: 3131510 / 500 µg
3131505 / 50 µg

Clone: MP6-XT22

Isotype: Rat IgG1, κ

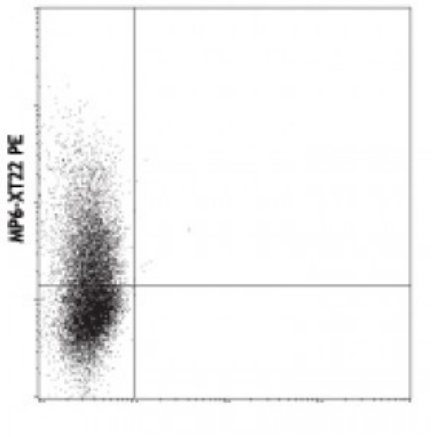
Immunogen: *E. coli*-expressed, recombinant mouse TNF-α

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography.

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

Concentration: 0.5



PMA/Ionomycin-stimulated BALB/c T cells were stained with MP6-XT22 PE

Applications:

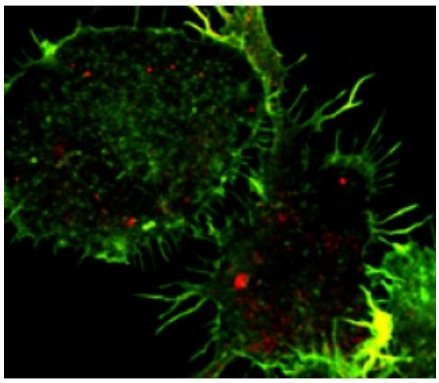
Applications: Other

Recommended Usage: Each lot of this antibody is quality control tested by ELISA assay. For ELISA capture applications, a concentration range of 2-6 microg/ml is recommended. To obtain a linear standard curve, serial dilutions of mouse TNF-α recombinant protein ranging from 500 to 4 pg/ml are recommended for each ELISA plate. 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.

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/µg, Azide-Free, 0.2 µm filtered) is recommended for neutralization of mouse TNF-α bioactivity *in vivo* and *in vitro* (Cat. No.



Immortalized murine bone marrow-derived macrophages stimulated overnight with LPS were stained with Atto-488 phalloidin (green) and purified TNF-α (clone MP6-XT22), secondarily stained with Goat anti-Rat IgG Dylight 594 (red). *Data provided by*

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 sections[7-9], *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 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.