

GMP PE anti-human TNF- α Antibody

Catalog# / Size	260396 / 100 tests
Clone	MAb11
Other Names	Tumor necrosis factor- α , Cachectin, Necrosin, Macrophage cytotoxic factor (MCF), Differentiation inducing factor (DIF), TNFSF2
Isotype	Mouse IgG1, κ
Description	TNF- α is secreted by macrophages, monocytes, neutrophils, T cells, and NK cells. Many 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 <i>in vitro</i> , hemorrhagic necrosis of tumors <i>in vivo</i> , increased fibroblast proliferation, and enhanced chemotaxis and phagocytosis in neutrophils.

Product Details

Reactivity	Human
Reported Reactivity	Cat, Chimpanzee, Baboon, Cynomolgus, Rhesus, Pigtailed Macaque, Sooty Mangabey, Pig
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	<i>E. coli</i> -expressed, recombinant human TNF- α
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA) and a stabilizer.
Preparation	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.
Concentration	100 μ g/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICFC - Quality tested
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 5 μ L per million cells in 100 μ L staining volume or 5 μ L per 100 μ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	<p>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.</p> <p>Flow Cytometry^{3,5,6,10}: The fluorochrome-labeled MAb11 antibody is useful for intracellular and membrane-bound immunofluorescent staining and flow cytometric analysis to identify TNF-α-producing cells within mixed cell populations.</p> <p>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, immunocytochemistry⁷, and immunofluorescence⁹. The MAb11 antibody can neutralize the bioactivity of natural or recombinant TNF-α.</p>

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/ μ g, Azide-Free, 0.2 μ m filtered) is recommended for neutralization of human TNF- α bioactivity (Cat. No. 502922).

The Purified MAb1 antibody is useful in neutralization² and as the capture antibody in a sandwich ELISA or ELISPOT assay, when used in conjunction with the biotinylated MAb11 antibody (Cat. No. 502904/502914) as the detecting antibody.

Clone MAb11 cross-reacts to Cat¹¹

Application References

(PubMed link indicates BioLegend citation)

1. Rathjen D, *et al.* 1991. *Mol. Immunol.* 28:79. (Neut)
2. Ablamunits V, *et al.* 2010. *Eur. J. Immunol.* 40:2891. (Neut)
3. Enrquez 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)
9. Zhao XJ, *et al.* 2003. *J. Immunol.* 170:2923. (IF)
10. Rieger R, *et al.* 2009. *Cancer Gene Ther.* 1:53-64. (FC)
11. Maksaarekul S, *et al.* 2009. *Vaccine.* 28:3754 (FC)

Disclaimer

GMP RUO Flow Cytometry Antibodies. BioLegend GMP RUO fluorophore conjugated antibodies are manufactured in a dedicated GMP facility and compliant with ISO 13485:2016. For research use only. Not for use in diagnostic or therapeutic procedures. Our processes include:

- Batch-to-batch consistency
- Material traceability
- Documented procedures
- Documented employee training
- Equipment maintenance and monitoring records
- Lot-specific certificates of analysis
- Quality audits per ISO 13485:2016
- QA review of released products

Antigen Details

Structure	TNF superfamily; dimer/trimer; 17 kD (Mammalian)
Bioactivity	Paracrine/endocrine mediator of inflammatory and immune functions; selectively cytotoxic for transformed cells; chemoattractant
Cell Sources	Activated monocytes, neutrophils, macrophages, T cells, B cells, NK cells, LAK cells
Cell Targets	Monocytes, neutrophils, macrophages, T cells, fibroblasts, endothelial cells, osteoclasts, adipocytes, astroglia, microglia
Receptors	TNFRSF1A (TNF-R1, CD120a, TNFR-p60 Type β , p55); TNFRSF1B (TNF-R2, CD120b, TNFR-p80 Type A, p75)
Cell Type	Neutrophils, Tregs
Biology Area	Cell Biology, Immunology, Innate Immunity, Neuroinflammation, Neuroscience
Molecular Family	Cytokines/Chemokines
Antigen References	<ol style="list-style-type: none">1. Fitzgerald K, <i>et al.</i> Eds. 2001. <i>The Cytokine FactsBook.</i> Academic Press, San Diego.2. Beutler B, <i>et al.</i> 1988. <i>Annu. Rev. Biochem.</i> 57:505.3. Beutler B, <i>et al.</i> 1989. <i>Annu. Rev. Immunol.</i> 7:625.4. Tracey K, <i>et al.</i> 1993. <i>Crit. Care Med.</i> 21:S415.
Regulation	Type II integral membrane protein processed by TACE for secretion; upregulated by interferons, IL-2, GM-CSF, substance P, bradykinin, PAF, immune complexes, cyclooxygenase; downregulated by IL-6, TGF- β , vitamin D3, prostaglandin E2, PAF antagonists
Gene ID	7124

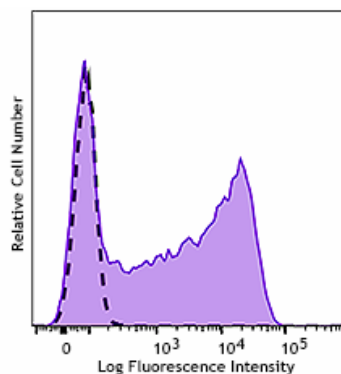
Related Protocols

- [Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

APC anti-human TNF- α , Biotin anti-human TNF- α , FITC anti-human TNF- α , PE anti-human TNF- α , Purified anti-human TNF- α , Alexa Fluor® 488 anti-human TNF- α , Alexa Fluor® 647 anti-human TNF- α , Alexa Fluor® 700 anti-human TNF- α , Pacific Blue™ anti-human TNF- α , PerCP/Cyanine5.5 anti-human TNF- α , PE/Cyanine7 anti-human TNF- α , Brilliant Violet 421™ anti-human TNF- α , Brilliant Violet 605™ anti-human TNF- α , Brilliant Violet 650™ anti-human TNF- α , Brilliant Violet 711™ anti-human TNF- α , APC/Cyanine7 anti-human TNF- α , Purified anti-human TNF- α (Maxpar® Ready), PE/Dazzle™ 594 anti-human TNF- α , Brilliant Violet 785™ anti-human TNF- α , Brilliant Violet 510™ anti-human TNF- α , PerCP anti-human TNF- α , Spark Blue™ 515 anti-human TNF- α , Spark UV™ 387 anti-human TNF- α , TotalSeq™-B0945 anti-human TNF- α , Brilliant Violet 750™ anti-human TNF- α , APC/Fire™ 810 anti-human TNF- α

Product Data



PMA + Ionomycin with Brefeldin A stimulated (4-hour) human peripheral blood lymphocytes were fixed with Fixation Buffer (Cat# 420801), permeabilized with Permeabilization Wash Buffer (Cat# 421002), and intracellularly stained either with MAb11 PE used at 5 μ L/test (filled histogram) or with an isotype control (open histogram).

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