Technical Data Sheet

Biotin Mouse Anti-Human TNF

Product Information

Material Number:	**554511**
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	MAb11
Immunogen:	Recombinant Human TNF
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The MAb11 antibody reacts with human tumor necrosis factor (TNF, formerly known as TNF-α) protein. TNF is an efficient paracrine and endocrine mediator of inflammatory and immune functions. It regulates the growth and differentiation of a variety of cell types. TNF is cytotoxic for transformed cells when in conjunction with IFN-γ. It is secreted by activated monocytes/macrophages and other cells such as B cells, T cells and fibroblasts. The immunogen used to generate the MAb11 hybridoma was recombinant human TNF. The use of the MAb11 antibody has been reported to cross-react with TNF of rhesus monkey.

This antibody is routinely tested by ELISA detection. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.
Store undiluted at 4° C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

ELISA Detection	Routinely Tested

Recommended Assay Procedure:

ELISA Detection: The biotinylated MAb11 antibody (Cat. No. 554511) can be used as a detecting antibody for a sandwich ELISA for measuring human TNF protein levels. Biotinylated MAb11 antibody can be paired with the purified MAb1 antibody (Cat. No. 551220) as the capture antibody, with recombinant human TNF (Cat. No. 554618) as the standard. This detecting antibody solution should be titrated from 0.5 - 2 µg/ml to determine its optimal concentration for ELISA detection. To obtain linear standard curves, doubling dilutions of TNF protein ranging from ~2,000 to 15 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology, please visit our web site, www.bdbiosciences.com, and go to the protocols section or Chapter 7 on ELISA in Techniques for Immune Function Analysis Application Handbook 1st Edition. BD Biosciences.

Note 1: This ELISA pair shows no cross-reactivity with any of the cytokines tested (e.g., mouse IL-1ß, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-9, IL-10, IL-12 p70, IL-15, GM-CSF, IFN-γ, MCP-1, TCA-3, TNF; human IL-1α, IL-1ß, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12 p70, IL-12 p40, IL-13, IL-15, G-CSF, GM-CSF, IFN-γ, lymphotactin, MCP-1, MCP-2, MIP-1α, MIP-1ß, NT3, PDGF-AA, sCD23 , SCF, LT-α, VEGF; rat IL-2, IL-4, IL-6, IL-10, GM-CSF, IFN-γ, TNF).

Note 2: This ELISA pair is recommended primarily for measuring cytokine from experimental cell culture systems. These ELISA reagents are not recommended for measuring serum samples. For testing human TNF in complex biological fluids like serum or plasma, our human TNF BD OptEIA™ ELISA Set (Cat. No.555212) and BD OptEIA™ ELISA Kit II (Cat. No. 550610) are recommended.

IF/Flow: The MAb11 antibody is useful for immunofluorescent staining and flow cytometric analysis to identify and enumerate TNF producing cells within mixed cell populations. FITC-conjugated MAb11 antibody (FITC-MAb11; Cat. No. 554512) and PE-conjugated MAb11 antibody (PE-MAb11; Cat. No. 554513) are recommended for these studies.

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Suggested Companion Products

Catalog Number	Name	Size	Clone
555212	Human TNF OptEIA™ ELISA Set	20 plates	(none)
550610	Human TNF OptEIA™ ELISA Kit II	2 plates	(none)
554618	Recombinant Human TNF	10 µg	(none)
551220	Purified Mouse Anti-Human TNF (Capture)	1.0 mg	MAb1

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Andersson J, Abrams J, Bjork L, et al. Concomitant in vivo production of 19 different cytokines in human tonsils. *Immunology.* 1994; 83(1):16-24.(Biology)

Andersson U, Andersson J. Immunolabeling of cytokine-producing cells in tissues and in suspension. In: Fradelizie D, Emelie D, ed. *Cytokine Producing Cells.* Paris: Inserm; 1994:32-49.(Biology)

Danis VA, Franic GM, Rathjen DA, Brooks PM. Effects of granulocyte-macrophage colony-stimulating factor (GM-CSF), IL-2, interferon-gamma (IFN-gamma), tumour necrosis factor-alpha (TNF-alpha) and IL-6 on the production of immunoreactive IL-1 and TNF-alpha by human monocytes. *Clin Exp Immunol.* 1991; 85(1):143-150.(Clone-specific: ELISA)

Litton M, Andersson J, Bjork L, Fehniger T, Ulfgren AK, Andersson U. Cytoplasmic cytokine staining in individual cells. In: Debets and Savelkoul, ed. *Human Cytokine Protocols.* Humana Press; 1996.(Biology)

Rathjen DA, Cowan K, Furphy LJ, Aston R. Antigenic structure of human tumour necrosis factor: recognition of distinct regions of TNF alpha by different tumour cell receptors. *Mol Immunol.* 1991; 28(1-2):79-86.(Clone-specific: ELISA)

Sander B, Andersson J, Andersson U. Assessment of cytokines by immunofluorescence and the paraformaldehyde-saponin procedure. *Immunol Rev.* 1991; 119:65-93.(Biology)