

Technical Data Sheet

Biotin Human anti-Mouse/Rat TNF

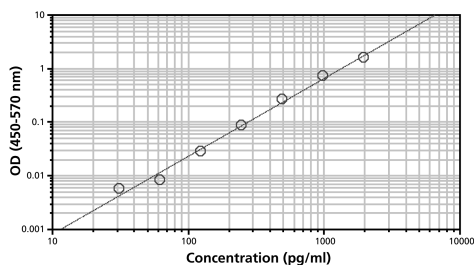
Product Information

Material Number:	558415
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	516D1A1
Immunogen:	Mouse TNF
Reactivity:	QC Testing: Mouse Reported: Rat
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 516D1A1 Fab antibody reacts with mouse and rat tumor-necrosis factor (TNF, formerly known as TNF- α) proteins. The 516D1A1 Fab was selected by screening a human Fab phage display library (Hoet et al.) licensed from Dyax Corp (Cambridge, MA) with recombinant mouse TNF protein. The biology and function of the TNF protein has been extensively reviewed (Hehlgans et al.) in the literature.

The biotinylated 516D1A1 antibody is useful as a detection antibody for a sandwich ELISA that measures mouse and rat TNF protein levels. Purified Hamster Anti-Mouse/Rat TNF (Cat. No.557516) as capture antibody can be paired with biotinylated 516D1A1 as the detection antibody, using purified recombinant mouse TNF protein (Cat. No. 554589) or purified recombinant rat TNF protein (Cat. No. 555109) as standard. The biotinylated 516D1A1 antibody should be titrated between 0.25 - 2.0 μ g/ml to determine its optimal ELISA detection concentration. To obtain linear standard curves, doubling dilutions of purified mouse or rat TNF protein ranging from 31.25 pg/ml to 2,000 pg/ml are recommended for inclusion in each ELISA plate. Investigators may find methodology information to be useful in Techniques for Immune Function Analysis Application Handbook 1st Edition. BD Biosciences (2003)-- Chapter 7: ELISA for specifically measuring the levels of cytokines, chemokines, and inflammatory mediators and their receptors. For this ELISA antibody pair, no cross-reactivity has been observed with the following: Rat IL-1 α , IL-2, IL-4, IL-6, IL-10, IL-18, GM-CSF, IFN- γ ; mouse IL-1 α , IL-1 β , IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-9, IL-10, IL-12p70, IL-13, IL-15, IL-17, IL-18, M-CSF, GM-CSF, IFN- γ , MCP-1, MIP-1 α , MIP-1 β , sTNFR1, sTNFR2, RANTES; human TNF.



Mouse TNF sandwich ELISA curve: The curve was generated by sandwich ELISA using the purified TN3-19.12 (Cat. No. 557516) as capture antibody, doubling dilutions of recombinant mouse TNF protein (Cat. No. 554589) and biotin 516D1A1 as detection antibody. Streptavidin-HRP (Cat. No. 554066) plus TMB substrate (Cat. No. 555214) were used to develop the ELISA.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

Application Notes

Application

ELISA	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
557516	Purified Hamster Anti-Mouse/Rat TNF	0.5 mg	TN3-19.12
550534	Reagent Set B	20 plates	(none)
560478	Mouse TNF ELISA Kit	2 plates	(none)
558534	Mouse TNF ELISA Set II	20 plates	(none)
560479	Rat TNF ELISA Kit	2 plates	(none)
558535	Rat TNF ELISA Set	20 plates	(none)

BD Biosciences

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Product Notices

1. 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.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Hehlgans T, Pfeffer K. The intriguing biology of the tumour necrosis factor/tumour necrosis factor receptor superfamily: players, rules and the games. *Immunology*. 2005; 115(1):1-20. (Biology)

Hoet RM, Cohen EH, Kent RB, et al. Generation of high-affinity human antibodies by combining donor-derived and synthetic complementarity-determining-region diversity. *Nat Biotechnol*. 2005; 23(3):344-348. (Clone-specific: ELISA)