

# Technical Data Sheet

InVivoMAb anti-mouse/rat/rabbit TNF $\alpha$



**Attention:** Use of this product constitutes an agreement to Bio X Cell's Terms and Conditions which are included with this product in print and can also be found at <https://bioxcell.com/terms-and-conditions>.

## Lot Specific Information

Lot Number: Lot Specific\*  
Volume: Lot Specific\*  
Concentration: Lot Specific\* (generally 4 to 11 mg/ml) \*  
Total Protein: Lot Specific\*

\*This information will be noted on the certificate of analysis that ships with this product.

## Product Information

Catalog Number:	BE0244
Clone:	TN3-19.12
Isotype:	Armenian Hamster IgG, $\kappa$
Recommended Isotype Control(s):	InVivoMAb polyclonal Armenian hamster IgG
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	Recombinant mouse TNF $\alpha$
Reported Applications:	<i>in vivo</i> TNF $\alpha$ neutralization Flow cytometry
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	<2EU/mg (<0.002EU/ $\mu$ g) Determined by LAL gel clotting assay
Purity:	>95% Determined by SDS-PAGE
Sterility:	0.2 $\mu$ m filtered
Production:	Purified from cell culture supernatant in an animal-free facility
Purification:	Protein G
RRID:	<a href="#">AB_2687725</a>
Molecular Weight:	150 kDa

## Description

The TN3-19.12 monoclonal antibody reacts with mouse, rat, and rabbit TNF $\alpha$  (tumor necrosis factor- $\alpha$ ) a multifunctional proinflammatory cytokine. TNF $\alpha$  exists as a soluble 17 kDa monomer, which forms homotrimers in circulation or as a 26 kDa membrane-bound form. TNF $\alpha$  belongs to the TNF superfamily of cytokines and signals through its two receptors, TNFR1 and TNFR2 which can be activated by both the soluble trimeric and membrane-bound and forms of TNF $\alpha$ . TNF $\alpha$  is primarily produced by macrophages in response to foreign antigens such as bacteria (lipopolysaccharides), viruses, and parasites as well as mitogens and other cytokines but can also be expressed by monocytes, neutrophils, NK cells, CD4 T cells and some specialized dendritic cells. TNF $\alpha$  is known to play key roles in a wide spectrum of biological processes including immunoregulation, cell proliferation, differentiation, apoptosis, antitumor activity, inflammation, anorexia, cachexia, septic shock, hematopoiesis, and viral replication. TNF $\alpha$  dysregulation has been implicated in a variety of diseases, including autoimmune diseases, insulin resistance, and cancer. Mouse and human TNF $\alpha$  share 79% amino acid sequence identity however, mouse TNF $\alpha$  is glycosylated while human TNF $\alpha$  is not. TNF $\alpha$  knockout animals display defects in response to bacterial infection, characterized by defects in forming organized follicular dendritic cell networks and germinal centers with a lack of primary B cell follicles. The TN3-19.12 antibody can neutralize the bioactivity of natural or recombinant TNF- $\alpha$ .

## Storage

Store at the stock concentration at 4°C. **Do not freeze.**  
It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at <https://bioxcell.com/faqs>.

**Protocol Information**

Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

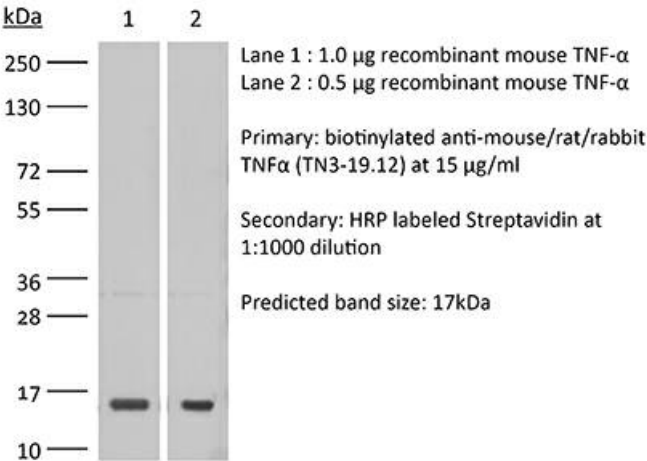
**Application References**

For a complete list of references, visit [https://bioxcell.com/catalogsearch/result/?q=BE0244#tab\\_references](https://bioxcell.com/catalogsearch/result/?q=BE0244#tab_references) or scan the QR code below.



**Binding Validation**

Validation data shown below confirms that this clone binds to its target antigen. For lot specific binding validation data, e-mail [technicalservice@bioxcell.com](mailto:technicalservice@bioxcell.com).



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