Technical Data Sheet

**InVivoMAb anti-mouse TNFα**

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:** BE0058
- **Clone:** XT3.11
- **Isotype:** Rat IgG1
- **Recommended Isotype Control(s):** InVivoMAb rat IgG1 isotype control, anti-horseradish peroxidase
- **Recommended Dilution Buffer:** InVivoPure pH 8.0 Dilution Buffer
- **Immunogen:** Recombinant mouse TNFα
  
  *in vivo* TNFα neutralization
  
  *in vitro* TNFα neutralization
- **Western blot**
- **Formulation:** PBS, pH 8.0
  
  Contains no stabilizers or preservatives
- **Endotoxin:** <2EU/mg (<0.002EU/μg)
  
  Determined by LAL gel clotting assay
- **Purity:** >95%
  
  Determined by SDS-PAGE
- **Sterility:** 0.2 μM filtered
- **Purification:** Purified from tissue culture supernatant in an animal free facility
- **Purification:** Protein G
- **RRID:**
- **Molecular Weight:** 150 kDa

Description

The XT3.11 monoclonal antibody reacts with mouse TNFα (tumor necrosis factor-alpha) a multifunctional proinflammatory cytokine. TNFα exists as a soluble 17 kDa monomer, which forms homotrimers in circulation or as a 25 kDa membrane-bound form. TNFα 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 forms of TNFα. TNFα 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. TNFα 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. TNFα dysregulation has been implicated in a variety of diseases, including autoimmune diseases, insulin resistance, and cancer. Mouse and human TNFα share 79% amino acid sequence identity however, mouse TNFα is glycosylated while human TNFα is not. TNFα 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.

Shelf-life and Storage

Store at the stock concentration at 4°C. **Do not freeze.**

All Bio X Cell antibodies have a guaranteed shelf-life of one year from the date of customer receipt when stored as recommended. 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 bxcell.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

Bio X Cell, Inc.
Binding Validation
Western blot data shown below confirms that this clone binds to its target antigen. For lot specific binding validation data, email technicallservice@bxcell.com.

Lane 1: 1 µg reduced purified mouse TNFα
Lane 2: 0.5 µg reduced purified mouse TNFα

Primary: anti-mouse TNFα antibody (KT3.11) at 15 µg/ml

Secondary: HRP labeled goat anti-rat at 1:1000 dilution

Predicted band size: 17 kDa