Technical Data Sheet

RecombiMAb anti-mouse TNFα (LALA-PG)

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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:	**CP232**
Clone:	**XT3.11-CP232**
Isotype:	Mouse IgG2a (LALA-PG), κ
Recommended Isotype Control(s):	RecombiMAb mouse IgG2a (LALA-PG) isotype control, anti-hen egg lysozyme
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Mutations:	LALA-PG
Immunogen:	Recombinant mouse TNFα
Reported Applications:	Western blot *in vivo* TNFα neutralization* *in vitro* TNFα neutralization* *Reported for the original rat IgG1 XT3.11 antibody
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤0.5EU/mg (≤0.0005EU/μg) Determined by LAL assay
Purity:	≥95% Determined by SDS-PAGE
Sterility:	0.2 μm filtration
Production:	Purified from mammalian cell supernatant in an animal-free facility
Purification:	Protein G
Aggregation:	<5% Determined by SEC
Molecular Weight:	150 kDa

Murine Pathogen Test Results

Mouse Norovirus: Negative, Mouse Parvovirus: Negative, Mouse Minute Virus: Negative, Mouse Hepatitis Virus: Negative, Reovirus Screen: Negative, Lymphocytic Choriomeningitis virus: Negative, Lactate Dehydrogenase-Elevating Virus: Negative, Mouse Rotavirus: Negative, Theiler's Murine Encephalomyelitis: Negative, Ectromelia/Mousepox Virus: Negative, Hantavirus: Negative, Polyoma Virus: Negative, Mouse Adenovirus: Negative, Sendai Virus: Negative, Mycoplasma Pulmonis: Negative, Pneumonia Virus of Mice: Negative, Mouse Cytomegalovirus: Negative, K Virus: Negative

Description

The XT3.11-CP232 monoclonal antibody is a recombinant, chimeric version of the original XT3.11 antibody. The variable domain sequences are identical but the constant region sequences have been switched from rat IgG1 to murine IgG2a for use in murine models. Additionally, the constant region includes the Fc silencing mutation LALA-PG, reducing Fc-dependent cellular depletion, phagocytosis, and complement activation. XT3.11-CP232 binds and neutralizes mouse TNF-α without confounding Fc-mediated immune-cell activation or cytotoxicity, making it useful for defining the direct effects of TNF

neutralization in mouse disease models. Species-matched chimeric antibodies support repeat and long-term dosing studies by reducing anti-drug antibody responses that can accelerate antibody clearance, compromise sustained target neutralization and confound interpretation of in vivo efficacy and safety findings. The highly controlled sequence and lack of genetic drift in recombinant antibodies provide more reliable and reproducible results over hybridoma derived antibodies. The XT3.11-CP232 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 26 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 and 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. This recombinant antibody is suitable for in vitro and in vivo research applications investigating TNF-α biology, inflammation, autoimmune disease, immuno-oncology, and related mouse disease models.

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 ?utm_source=cr9k1b#tab_references or scan the QR code below.

Bio X Cell, LLC
https://bioxcell.com
+1-866-787-3444
customerservice@bioxcell.com