

InVivoSIM anti-human TNF α (Certolizumab Biosimilar)

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: SIM0102FAB
Clone: Certolizumab
Isotype: Human IgG1, κ
Recommended Dilution Buffer: InVivoPure pH 7.0 Dilution Buffer
Immunogen: Human TNF α
Reported Applications: *in vivo* functional assays
in vitro functional assays
Flow cytometry
ELISA
Formulation: PBS, pH 7.0
Contains no stabilizers or preservatives
Endotoxin: ≤ 0.5 EU/mg (≤ 0.0005 EU/ μ g)
Determined by LAL assay
Purity: $\geq 95\%$
Determined by SDS-PAGE
Sterility: 0.2 μ m filtration
Production: Purified from cell culture supernatant in an animal-free facility
Purification: Protein A
Aggregation: $< 5\%$
Determined by SEC
RRID:
Molecular Weight: 50 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

This biosimilar Certolizumab antibody uses the same variable regions as the therapeutic antibody Certolizumab, making it ideal for research use. Certolizumab is an antigen-binding fragment (Fab') that specifically targets tumor necrosis factor alpha (TNF- α), a central pro-inflammatory cytokine involved in autoimmune and inflammatory diseases. Unlike full-length IgG antibodies, Certolizumab lacks an Fc region and therefore does not engage Fc γ receptors or activate complement, enabling selective neutralization of soluble and membrane-associated TNF- α without Fc-mediated effector functions such as ADCC or CDC. While the therapeutic form of Certolizumab is PEGylated to extend serum half-life, this research-use biosimilar is not PEGylated, allowing investigators to study TNF- α neutralization independent of PEG-related pharmacokinetic or

biological effects. This Certolizumab biosimilar is well suited for investigating TNF- α biology, inflammatory signaling pathways, and for benchmarking the therapeutic antibody's target engagement and neutralizing activity in pre-clinical experimental systems where Fc-mediated functions are not desired.

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/sim0102fab?bxcs=9k1b3a#tab_references or scan the QR code below.



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