

Technical Data Sheet

InVivoSIM anti-human CD28 (Theralizumab biosimilar)



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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 Website Link: <https://bioxcell.com/invivosim-anti-human-cd28-theralizumab-biosimilar-sim0105>

Product Information

Catalog Number: SIM0105
Clone: Theralizumab
Isotype: Human IgG4 (S228P) - Kappa
Recommended Isotype Control(s): RecombiMAb human IgG4 (S228P) isotype control, anti-hen egg lysozyme
Recommended Dilution Buffer: InVivoPure pH 7.0 Dilution Buffer
Mutations: S228P
Immunogen: Human CD28
Reported Applications: *in vivo* functional assays
in vitro functional assays
ELISA
Flow cytometry
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 cell culture supernatant in an animal-free facility
Purification: Protein A
Aggregation: <5%
Determined by SEC

RRID:

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 antibody uses the same variable regions as the therapeutic antibody Theralizumab, making it ideal for research use. Theralizumab (TGN1412) is a humanized IgG4 monoclonal antibody that targets CD28, a co-stimulatory receptor expressed on T cells. CD28 provides essential signals for T cell activation, proliferation, and cytokine production

upon engagement with its ligands CD80 and CD86 on antigen-presenting cells. Theralizumab is a superagonist antibody, meaning it can activate T cells independently of T cell receptor (TCR) signaling, leading to robust polyclonal T cell activation and cytokine release. This mechanism highlighted the critical role of CD28 in immune regulation, as well as the risks associated with uncontrolled immune activation. This Theralizumab biosimilar is well suited for studying T cell co-stimulation, immune activation, and cytokine release mechanisms in vitro and in vivo.

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/invivosim-anti-human-cd28-theralizumab-biosimilar-sim0105?utm_source=cr9k1b#tab_references or scan the QR code below.



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