Technical Data Sheet

InVivoSIM anti-human CD27 (Varlilumab 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:	**SIM0087**
Clone:	**Varlilumab**
Isotype:	Human IgG4, κ
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 CD27
Reported Applications:	*in vivo* functional assays *in vitro* functional assays Flow cytometry Western blot ELISA
Formulation:	pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤0.5EU/mg (≤0.0005EU/μg) Determined by LAL gel clotting 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:	
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

This non-therapeutic biosimilar antibody uses the same variable regions as the therapeutic antibody Varlilumab, making it ideal for research use. Varlilumab is a human IgG1 monoclonal antibody that specifically targets CD27, a member of the tumor necrosis factor receptor (TNFR) superfamily. CD27 is a co-stimulatory immune receptor that is constitutively

expressed on naive and memory T cells, and can also be found on regulatory T cells (Tregs), NK cells, and some B cells. Engagement of CD27 by its ligand, CD70, promotes T cell activation, survival, and effector function, playing a key role in regulating immune responses and maintaining long-term immunity. Varlilumab is an agonist antibody that mimics CD70 binding, delivering potent co-stimulatory signals to T cells while also depleting $CD27^+$ regulatory T cells via Fc-mediated effector mechanisms. Varlilumab has shown therapeutic potential in enhancing anti-tumor immunity in cancer models and has been investigated in combination with immune checkpoint inhibitors such as anti-PD-1. This Varlilumab biosimilar is ideal for studying CD27 signaling, T cell costimulation, Treg modulation, and combination immunotherapy mechanisms in both in vitro and in vivo settings.

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/sim0087?bxcs=9k1b3a#tab_references or scan the QR code below.

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