

Technical Data Sheet

InVivoSIM anti-human IL-31RA (Nemolizumab 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:	SIM0078
Clone:	Nemolizumab
Isotype:	Human IgG2, κ
Recommended Isotype Control(s):	RecombiMAb human IgG2 isotype control, anti-hen egg lysozyme
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Mutations:	C130S/R132K/E136G/S137G/C218S/ H263Q/R350Q/Q414E/G441DEL/K442DEL
Immunogen:	Human IL-31RA
Reported Applications:	<i>in vivo</i> functional assays <i>in vitro</i> functional assays Flow cytometry ELISA
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	<0.5EU/mg (<0.0005EU/ μ g) Determined by LAL gel clotting assay
Purity:	>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:	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 Nemolizumab making it ideal for research use. Nemolizumab is a humanized IgG2 monoclonal antibody that specifically targets the interleukin-31

receptor alpha (IL-31RA). IL-31RA is primarily expressed on keratinocytes, dorsal root ganglion (DRG) neurons, monocytes, macrophages, and dendritic cells, where it mediates the biological effects of IL-31, a cytokine known for driving pruritus, inflammation, and epithelial barrier dysfunction. By binding to IL-31RA, it blocks the signaling of interleukin-31 (IL-31)—a neuroimmune cytokine that drives itch (pruritus), skin inflammation, barrier dysfunction, and fibrosis—thereby interrupting the pathogenic itch–scratch cycle seen in skin disorders like atopic dermatitis (AD) and prurigo nodularis (PN). Nemolizumab has been shown to provide rapid and sustained relief of pruritus in clinical trials involving AD and PN by modulating neuroimmune pathways, improving skin integrity, and reducing inflammation. This Nemolizumab biosimilar is well suited for studying IL-31 signaling, neuroimmune interactions in itch, barrier function, and the development of anti-pruritic therapeutics.

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/sim0078?bxcs=9k1b3a#tab_references or scan the QR code below.



Bio X Cell, LLC

<https://bioxcell.com>

+1-866-787-3444

customerservice@bioxcell.com

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