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:	*in vivo* functional assays *in vitro* functional assays Flow cytometry ELISA
Formulation:	PBS, 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 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.

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