Technical Data Sheet

InVivoSIM anti-human FcRn (FCGRT) (Nipocalimab 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:	**SIM0062**
Clone:	**Nipocalimab**
Isotype:	Human IgG1, λ
Recommended Isotype Control(s):	RecombiMAb human IgG1 (N297A) isotype control, anti-hen egg lysozyme
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Mutations:	N297A/KDel
Immunogen:	Human FcRn
Reported Applications:	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 Nipocalimab, making it ideal for research use. Nipocalimab is a fully human IgG1 monoclonal antibody that targets the neonatal Fc receptor (FcRn), a key regulator of IgG homeostasis and recycling. FcRn binds to IgG antibodies at acidic pH in endosomes and protects them from lysosomal degradation by recycling them back to the cell surface, where they are released at neutral pH. This process extends the half-life of circulating IgG antibodies. FcRn is expressed in a variety of cell types, including endothelial cells, epithelial cells (such as those in the lung, intestine, and placenta), monocytes, macrophages, dendritic cells, and

neutrophils. Its widespread expression supports systemic IgG regulation, tissue-level antibody transport, and immune homeostasis. By binding to FcRn, Nipocalimab competitively inhibits endogenous IgG from interacting with FcRn, thereby accelerating IgG catabolism and reducing total IgG levels in circulation. This mechanism has therapeutic implications for IgG-mediated autoimmune diseases, where pathogenic autoantibodies contribute to disease pathology. This Nipocalimab biosimilar antibody is intended for non-therapeutic research use only and is an excellent tool for studying FcRn biology, IgG clearance, antibody recycling, and the development of FcRn-targeting 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

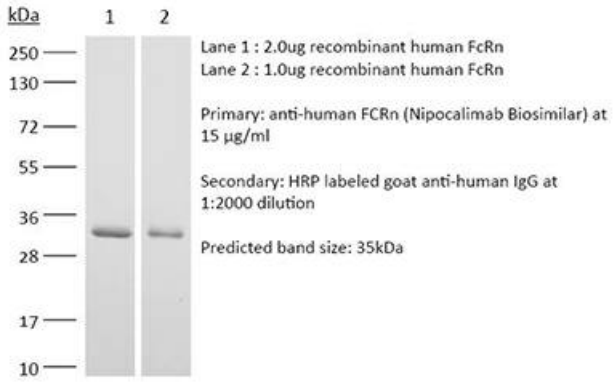
Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

Application References

For a complete list of references, visit https://bioxcell.com/sim0062?bxcs=9k1b3a#tab_references or scan the QR code below.

Binding Validation

Validation data shown below confirms that this clone binds to its target antigen. For lot specific binding validation data, e-mail technicalservice@bioxcell.com.



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