

# Technical Data Sheet

## InVivoSIM anti-human IFN $\gamma$ (Emapalumab 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:	SIM0074
Clone:	Emapalumab
Isotype:	Human IgG1, $\lambda$
Recommended Isotype Control(s):	RecombiMAb human IgG1 (K214R/L234F/L235E/P331S) isotype control, anti-hen egg lysozyme
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Mutations:	K214R
Immunogen:	Human IFN $\gamma$
Reported Applications:	Functional assays ELISA Western blot Flow cytometry
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	<0.5EU/mg (<0.0005EU/ $\mu$ g) Determined by LAL gel clotting assay
Purity:	>95% Determined by SDS-PAGE
Sterility:	0.2 $\mu$ 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 Emapalumab making it ideal for research use. Emapalumab is a fully human IgG1 monoclonal antibody that specifically binds interferon-gamma

(IFN $\gamma$ ), both free and receptor-bound forms, to prevent its interaction with the IFN $\gamma$  receptor. IFN $\gamma$  is a 20 kDa soluble pleiotropic cytokine and the sole member of the type II class of interferons. IFN $\gamma$  is primarily produced by activated lymphocytes including T, B, NK cells, and ILCs. IFN $\gamma$  exerts immunoregulatory, anti-proliferative, anti-viral, and proinflammatory activities and plays an important role in activation, growth, and differentiation of T and B lymphocytes, macrophages, NK cells and other non-hematopoietic cell types. Additionally, IFN $\gamma$  induces the production of cytokines, Fc receptor, and adhesion molecules and up-regulates MHC class I and II antigen expression by antigen presenting cells during an immune response. IFN $\gamma$  has also been shown to modulate macrophage effector functions, influence isotype switching and induce the secretion of immunoglobulins by B cells. IFN $\gamma$  signals through the IFN gamma receptor which exists as a heterodimer composed of CD119 (IFN gamma receptor 1) and AF-1 (IFN gamma receptor 2). The IFN $\gamma$  receptor is expressed ubiquitously on almost all cell types with the exception of mature erythrocytes.

## 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

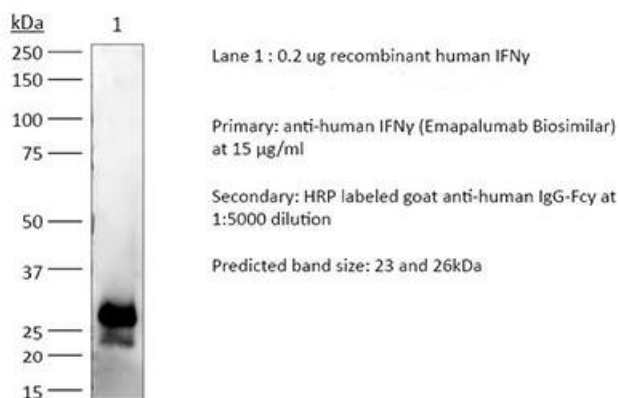
[https://bioxcell.com/sim0074?bxcs=9k1b3a#tab\\_references](https://bioxcell.com/sim0074?bxcs=9k1b3a#tab_references)

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](mailto:technicalservice@bioxcell.com).



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