

# Technical Data Sheet

## InVivoSIM anti-human TIM-3 (Sabatolimab 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:** SIM0043  
**Clone:** Sabatolimab  
**Isotype:** Human IgG4,  $\kappa$   
**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 TIM-3  
**Reported Applications:** Functional assays  
ELISA  
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 biosimilar antibody uses the same variable regions as the therapeutic antibody Sabatolimab, making it ideal for research use. Sabatolimab is a humanized IgG4 monoclonal antibody that reacts with human TIM-3 (T cell immunoglobulin and mucin domain-3), also known as CD366. TIM-3 is a 60 kDa member of the TIM family of immune checkpoint receptors and exists as a type I transmembrane glycoprotein with a mucin-like domain in its extracellular portion and a tyrosine

phosphorylation motif in its cytoplasmic portion. TIM-3 is specifically expressed at high levels on the surface of Th1 lymphocytes whereas Th2 lymphocytes express TIM-1 and TIM-2. TIM-3 activation occurs via binding to the cell-associated C-type lectin galectin-9. Upon binding TIM-3 induces apoptosis of Th1 cells. Inhibition of TIM-3 signaling in mice has been shown to exacerbate experimental autoimmune encephalomyelitis, promote IFN $\gamma$  production and Th1 cell proliferation. Tim-3 has also been shown to be required for the induction of tolerance, as both TIM-3 knockout animals and mice treated with TIM-3-Ig fusion protein display defects in the induction of antigen-specific tolerance. Additionally, TIM-3 signaling is currently being explored as a cancer immunotherapy target as CD8 T cells which express both TIM-3 and PD-1 exhibit greater defects in both cell-cycle progression and effector cytokine production than cells that express PD-1 alone. Sabatolimab binds to TIM-3 with subnanomolar affinity, blocks its interaction with its ligand, phosphatidylserine (PtdSer), and partially blocks the interaction of TIM-3 with Galectin-9.

## 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.

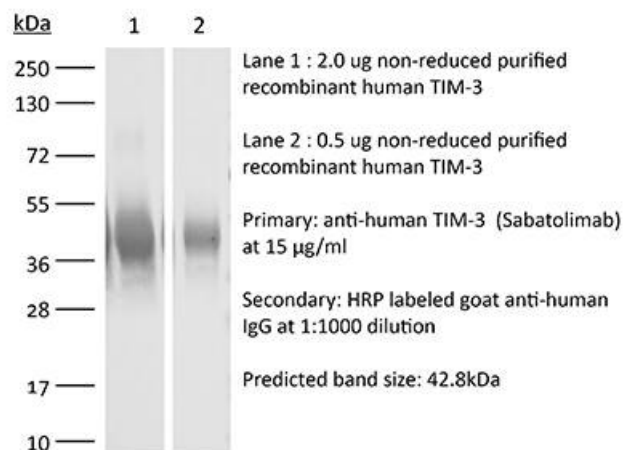
## Application References

For a complete list of references, visit [https://bioxcell.com/sim0043?bxcs=9k1b3a#tab\\_references](https://bioxcell.com/sim0043?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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