

Technical Data Sheet

InVivoSIM anti-human VEGF-A (Ranibizumab Biosimilar)



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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: SIM0123FAB
Clone: Ranibizumab
Isotype: Human IgG1, κ
Recommended Dilution Buffer: InVivoPure pH 7.0 Dilution Buffer
Immunogen: Human VEGF-A
Reported Applications: *in vivo* functional assays
in vitro functional assays
Formulation: PBS, pH 7.0
Contains no stabilizers or preservatives
Endotoxin: ≤ 0.5 EU/mg (≤ 0.0005 EU/ μ g)
Determined by LAL assay
Purity: $\geq 95\%$
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
Molecular Weight: 48 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 Ranibizumab biosimilar antibody uses the same variable regions as the therapeutic antibody Ranibizumab, making it ideal for research use. Ranibizumab is a humanized antigen-binding fragment (Fab) that specifically targets human vascular endothelial growth factor A (VEGF-A), a key regulator of angiogenesis and vascular permeability. Unlike full-length IgG antibodies, Ranibizumab consists solely of the Fab region and therefore lacks an Fc domain and Fc-mediated effector functions. By binding soluble VEGF-A, Ranibizumab prevents VEGF-A from activating its receptors, including VEGFR-1 and VEGFR-2, thereby inhibiting VEGF-mediated endothelial cell proliferation, vascular permeability, and neovascularization. VEGF-A plays important roles in physiological and pathological angiogenesis and is particularly relevant to ocular neovascular diseases and tumor vascular biology. This Ranibizumab biosimilar is well suited for studying VEGF-A biology, angiogenesis, vascular permeability, endothelial cell signaling, ocular neovascularization, and for benchmarking the therapeutic antibody's target engagement and neutralizing activity in pre-clinical experimental systems.

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 [?utm_source=cr9k1b#tab_references](https://bioxcell.com/?utm_source=cr9k1b#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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