

Technical Data Sheet

InVivoMAb anti-mouse IFN- β



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: BE0489
Clone: HD β -4A7
Isotype: Mouse IgG2a, κ
Recommended Isotype Control(s): InVivoMAb mouse IgG2a isotype control, unknown specificity
Recommended Dilution Buffer: InVivoPure pH 7.0 Dilution Buffer
Immunogen: Plasmid DNA encoding murine IFN- β
Reported Applications: *in vivo* neutralization of IFN- β
in vitro neutralization of IFN- β
ELISA
Formulation: PBS, pH 7.0
Contains no stabilizers or preservatives
Endotoxin: ≤ 1 EU/mg (≤ 0.001 EU/ μ g)
Determined by LAL assay
Purity: $\geq 95\%$
Determined by SDS-PAGE
Sterility: 0.2 μ m filtered
Production: Purified from cell culture supernatant in an animal-free facility
Purification: Protein G
RRID:
Molecular Weight: 150 kDa

Description

The HD β -4A7 monoclonal antibody reacts with mouse interferon beta (IFN- β), also known as Irfb1 (interferon beta 1, fibroblast). The clone HD β -4A7 (also referred to as HD β -4A7) does not cross-react with mouse IFN- γ or mouse IFN- α isoforms (IFN- α A, IFN- α 1, IFN- α 4, IFN- α 5, and IFN- α 13). IFN- β is a type I interferon cytokine that binds its high-affinity (IFNAR2) and low-affinity (IFNAR1) subunits of the heterodimeric type I IFN receptor (IFNAR), activating canonical JAK-STAT and MAPK signaling to drive transcriptional regulation of IFN-stimulated genes (ISGs). IFN- β plays a significant role in innate immunity to infections, tumorigenesis, and inflammation. In most cell types, IFN- β is induced after microbial detection through pattern-recognition receptors (PRRs) and the subsequent activation/nuclear translocation of IRF-family transcription factor-1 (IRF-1) and IRF-3. IFN- β elicits antimicrobial activities and regulates the LPS-inducible TNF production. IFN- β directly mobilizes systemic immune responses through enhanced antigen presentation, NK cell activation, and T-cell effector function. In the nervous system, IFN- β modulates dopamine turnover, neuronal autophagy, and α -synuclein clearance, thereby contributing to dopaminergic neuronal homeostasis. In cancer biology, IFN- β is often more potent than IFN- α in inducing cellular apoptosis and anti-proliferative signaling.

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/be0489?bxcs=9k1b3a#tab_references or scan the QR code below.



Bio X Cell, LLC

<https://bioxcell.com>

+1-866-787-3444

customerservice@bioxcell.com

Conditions: For research use only. Not for use in diagnostic or therapeutic procedures.

Not for resale.

Bio X Cell, Bio X Cell logo, and all other trademarks are the property of Bio X Cell, LLC © 2026 Bio X Cell, LLC