

# Technical Data Sheet

## InVivoMAb anti-mouse CD5



[bioxcell.com](https://bioxcell.com)

**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: BE0507  
Clone: 53-7.3  
Isotype: Rat IgG2a,  $\kappa$   
Recommended Isotype Control(s): InVivoMAb rat IgG2a isotype control, anti-trinitrophenol  
Recommended Dilution Buffer: InVivoPure pH 7.0 Dilution Buffer  
Immunogen: Mouse Spleen Cells  
Reported Applications: *in vivo* blocking of CD5  
*in vitro* blocking of CD5  
Functional assays  
Flow cytometry  
Immunofluorescence  
Immunohistochemistry (frozen)  
Immunoprecipitation  
Formulation: PBS, pH 7.0  
Contains no stabilizers or preservatives  
Endotoxin:  $\leq 1\text{EU/mg}$  ( $\leq 0.001\text{EU}/\mu\text{g}$ )  
Determined by LAL assay  
Purity:  $\geq 95\%$   
Determined by SDS-PAGE  
Sterility:  $0.2\ \mu\text{m}$  filtration  
Production: Purified from cell culture supernatant in an animal-free facility  
Purification: Protein G  
RRID:  
Molecular Weight: 150 kDa

### Description

The 53-7.3 monoclonal antibody (aka 53-7.313) reacts with mouse CD5, a 65 kDa lymphoid-specific glycoprotein. CD5 is also known as lymphocyte antigen 1 (Ly-1 or Lyt-1), Ly-A, and Ly-12. CD5 is expressed on the cell surface of all T-cells and in a subset of B-cells called B1a cells. CD5 plays a role in the regulation of TCR and BCR signaling, thymocyte selection, T-cell effector differentiation, and immune tolerance. CD5 interacts with ligands such as CD5L, CD72 (LYB-2), CBL, and PTPN6 (SHP-1), thereby playing an important role in contact-mediated, T-cell-dependent B-cell activation and in the maintenance of regulatory T and B cells. During thymocyte development, CD5 interacts with LCK, the CD3 $\zeta$  chain, PI3K, and CBL, to negatively regulate the TCR signaling. CD5's role is context-dependent—it acts as a co-stimulator in naïve T cells but becomes inhibitory in anergic or tolerized cells. In preclinical research, *in vivo* blockade of CD5 with the 53-7.3 antibody (non-depleting) is shown to reverse the DC-induced unresponsiveness of antigen-activated T cells and to reduce disease severity in collagen-induced arthritis in preclinical research.

### 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.



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*Not for resale.*

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