

# Technical Data Sheet

## InVivoMAb anti-human CD3 F(ab) fragment



[bioxcell.com](http://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 Website Link:** <https://bioxcell.com/invivomab-anti-human-cd3-f-ab-fragment-be0231fab>

### Product Information

**Catalog Number:** BE0231FAB  
**Clone:** UCHT1 (Leu-4) (T3) f(ab) Fragments  
**Isotype:** Mouse IgG1,  $\kappa$   
**Recommended Dilution Buffer:** InVivoPure pH 7.0 Dilution Buffer  
**Immunogen:** Human CD3 $\epsilon$   
**Formulation:** PBS, pH 7.0  
Contains no stabilizers or preservatives  
**Endotoxin:**  $\leq 1$  EU/mg ( $\leq 0.001$  EU/ $\mu$ g)  
Determined by LAL assay  
**Purity:**  $\geq 95\%$   
Determined by SDS-PAGE and SEC  
**Sterility:** 0.2  $\mu$ m filtered  
**Production:** Papain Digest  
**Purification:** Protein G  
**RRID:**

### Description

This product is an F(ab) fragment derived from the anti-human CD3 antibody clone UCHT1 (Leu-4) (T3). The UCHT1 (Leu-4) (T3) monoclonal antibody reacts with human CD3 $\epsilon$ , a 20 kDa transmembrane cell-surface protein and member of the immunoglobulin superfamily. CD3 $\epsilon$  is one of the polypeptide chains that associates with the T cell receptor (TCR) to form the TCR/CD3 complex. CD3 $\epsilon$  is expressed on T lymphocytes, NK-T cells, and to varying degrees on developing thymocytes, where it plays a central role in TCR signaling, T cell activation, and antigen recognition. Unlike a full-length antibody, this F(ab) fragment contains only the antigen-binding region and lacks the Fc domain. As a result, the fragment retains specific binding to human CD3 $\epsilon$  while eliminating Fc-mediated effector functions such as complement activation and Fc receptor engagement. Because the Fc region is absent, this format is useful in experiments where CD3 engagement or T cell targeting is desired without Fc-dependent immune effects, including antibody-mediated cytotoxicity, Fc receptor-driven cross-linking by accessory cells, or complement activation. Immobilized full-length UCHT1 (Leu-4) (T3) antibody is commonly used to activate human T cells in vitro through crosslinking of the TCR/CD3 complex. In contrast, the F(ab) fragment format may provide a more controlled approach for studies focused on CD3 binding, receptor engagement, or T cell targeting while minimizing secondary Fc-mediated mechanisms that can complicate interpretation of results. This can be particularly useful when researchers want to examine CD3-associated biology without introducing Fc-dependent immune activation. F(ab) fragments targeting CD3 may also be useful in emerging targeted delivery and cell-engineering strategies. For example, CD3-binding fragments can be used to coat nanoparticles, viral vectors, or other delivery systems to selectively target T cells and deliver genetic payloads such as CAR constructs or gene-editing components directly in vivo. By avoiding Fc-mediated immune interactions, F(ab) fragments help preserve target cells while enabling receptor-specific targeting and delivery. This anti-human CD3 F(ab) fragment therefore provides a useful reagent for studies focused on human T cell targeting, CD3 engagement without Fc-mediated effects, and receptor-directed delivery approaches.

## 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/invivomab-anti-human-cd3-f-ab-fragment-be0231fab?utm\\_source=cr9k1b#tab\\_references](https://bioxcell.com/invivomab-anti-human-cd3-f-ab-fragment-be0231fab?utm_source=cr9k1b#tab_references) or scan the QR code below.



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**Bio X Cell, LLC**

<https://bioxcell.com>

+1-866-787-3444

[customerservice@bioxcell.com](mailto:customerservice@bioxcell.com)

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