Technical Data Sheet

InVivoMAb anti-human CD3 F(ab) fragment

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:	**BE0001-2FAB**
Clone:	**OKT-3 f(ab) Fragments**
Isotype:	Mouse IgG2a, κ
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	Human CD3ε
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤1EU/mg (≤0.001EU/μg) Determined by LAL assay
Purity:	≥95% Determined by SDS-PAGE and SEC
Sterility:	0.2 μm filtered
Production:	Pepsin Digest
Purification:	Protein G
RRID:	

Description

This product is an F(ab) fragment derived from the anti-human CD3 antibody clone OKT-3. CD3 is a multi-subunit signaling complex associated with the T cell receptor (TCR) and is expressed on nearly all mature T lymphocytes. Engagement of CD3 plays a central role in T cell activation by transmitting signals from the TCR following 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 CD3 while eliminating Fc-mediated effector functions such as complement activation and Fcγ receptor engagement. Because the Fc region is absent, this format is useful in experiments where CD3 engagement is desired without Fc-dependent immune effects, including antibody-mediated cytotoxicity, Fcγ receptor–driven cross-linking by accessory cells, or complement activation. F(ab) fragments can therefore provide a more controlled way to study TCR/CD3 signaling or receptor engagement while minimizing secondary immune mechanisms that can complicate interpretation of results. 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 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/be0001-2fab?bxcs=9k1b3a#tab_references or scan the QR code below.

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