

# Technical Data Sheet

## InVivoMAb anti-mouse CD3 $\epsilon$ F(ab')<sub>2</sub> 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: BE0001-1FAB  
Clone: 145-2C11 f(ab')<sub>2</sub> Fragments  
Isotype: Armenian Hamster IgG1  
Recommended Isotype Control(s): InVivoMAb hamster IgG f(ab')<sub>2</sub> fragments  
Recommended Dilution Buffer: InVivoPure pH 7.0 Dilution Buffer  
Immunogen: Mouse BM10-37 cytotoxic T cells  
Reported Applications: *in vivo* T cell depletion  
Formulation: PBS, pH 7.0  
Contains no stabilizers or preservatives  
Endotoxin: <2EU/mg (<0.002EU/ $\mu$ g)  
Determined by LAL gel clotting assay  
Purity: >95%  
Determined by SDS-PAGE  
Sterility: 0.2  $\mu$ m filtered  
Production: Pepsin Digest  
Purification: Protein A  
RRID: [AB\\_2687679](https://rrid.info/AB_2687679)

### Description

The anti-mouse CD3 F(ab')<sub>2</sub> fragment is the antigen binding F(ab')<sub>2</sub> fragments of the 145-2C11 monoclonal antibody only. The majority of the Fc fragment has been removed via pepsin digestion. The 145-2C11 antibody F(ab')<sub>2</sub> fragment reacts with mouse CD3 $\epsilon$ , a 20 kDa transmembrane cell-surface protein that belongs to the immunoglobulin superfamily. CD3 $\epsilon$  is one of five polypeptide chains that combine to form the TCR complex. CD3 $\epsilon$  is expressed on T lymphocytes, NK-T cells, and to varying degrees on developing thymocytes. CD3 plays roles in TCR signaling, T lymphocyte activation, and antigen recognition. The complete 145-2C11 antibody is commonly used to stimulate T cells *in vitro* however, when used *in vivo* activation of resting T cells results in cytokine release and toxicity caused by Ab-mediated cross-linking of T cells and Fc $\gamma$  receptor-bearing cells. To avoid these complications non-Fc receptor binding F(ab')<sub>2</sub> fragments of the 145-2C11 antibody are commonly used. This non-FcR-binding anti-CD3 induces apoptosis of Ag-activated T cells *in vivo* by allowing durable expression of the TCR and sustained signaling. Foxp3<sup>+</sup> Tregs have been shown to be resistant to CD3 antibody-mediated depletion.

### 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/be0001-1fab?bxcs=9k1b3a#tab\\_references](https://bioxcell.com/be0001-1fab?bxcs=9k1b3a#tab_references) or scan the QR code below.



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