

Technical Data Sheet

InVivoMAb anti-mouse CTLA-4 (CD152) F(ab) fragment



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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-mouse-ctla-4-cd152-f-ab-fragment-be0131fab>

Product Information

Catalog Number: BE0131FAB
Clone: 9H10 f(ab) Fragment
Isotype: Syrian hamster IgG
Recommended Dilution Buffer: InVivoPure pH 7.0 Dilution Buffer
Immunogen: Mouse CTLA-4-human IgG1 fusion protein
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: Papain Digest
Purification: Protein G
RRID:

Description

This product is an F(ab) fragment derived from the anti-mouse CTLA-4 antibody clone 9H10. The 9H10 monoclonal antibody reacts with mouse CTLA-4, also known as cytotoxic T lymphocyte antigen-4 or CD152. CTLA-4 is a 33 kDa cell-surface receptor encoded by the *Ctla4* gene and belongs to the CD28 family of the immunoglobulin superfamily. CTLA-4 is expressed on activated T lymphocytes, regulatory T cells, and activated B lymphocytes. CTLA-4 is structurally similar to the T cell co-stimulatory receptor CD28, and both molecules bind the B7 family members B7-1 (CD80) and B7-2 (CD86). Upon ligand binding, CTLA-4 negatively regulates cell-mediated immune responses and plays important roles in immune tolerance, thymocyte development, and the regulation of protective immunity. 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 mouse CTLA-4 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 CTLA-4 binding or receptor engagement is desired without Fc-dependent immune effects, including antibody-mediated cytotoxicity, Fcγ receptor-mediated cross-linking by accessory cells, or complement activation. CTLA-4 is an important inhibitory immune checkpoint receptor and is widely studied in the context of immune regulation, T cell activation, regulatory T cell biology, and cancer immunotherapy. The full-length 9H10 antibody has been shown to promote T cell co-stimulation by blocking CTLA-4 binding to the B7 co-receptors, thereby allowing CD28-mediated signaling. The F(ab) fragment format may provide a useful tool for studying CTLA-4 binding, receptor engagement, and checkpoint biology while minimizing secondary Fc-mediated mechanisms that can complicate interpretation of results. This anti-mouse CTLA-4 F(ab) fragment is well suited for studies focused on CTLA-4 targeting, immune checkpoint regulation, and CTLA-4 engagement without Fc-mediated effects.

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-mouse-ctla-4-cd152-f-ab-fragment-be0131fab?utm_source=cr9k1b#tab_references or scan the QR code below.



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