

Anti-mouse CTLA-4 Antibody for Flow Cytometry (Clone: 9D9, Mouse IgG2b Kappa) | PA007501.m2b

Catalog No.: PA007501.m2b | Isotype: Mouse IgG2b Kappa | Flow Cytometry / In Vivo Grade

Recombinant mouse anti-mouse CTLA-4 monoclonal antibody (Clone 9D9), engineered with a Mouse IgG2b constant region for flow cytometry, immunohistochemistry, and immune checkpoint blocking assays. Variable regions are derived from the classic 9D9 clone and recombinantly expressed in mammalian cells.

Product Specifications

|                          |                                                                                                                                                                                                             |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Catalog No.              | PA007501.m2b                                                                                                                                                                                                |
| Product Name             | Recombinant Anti-mouse CTLA-4 Monoclonal Antibody (Clone: 9D9), Mouse IgG2b Kappa                                                                                                                           |
| Synonyms                 | cytotoxic T-lymphocyte associated antigen 4, cytotoxic T-lymphocyte antigen 4, CD152, CTLA4                                                                                                                 |
| Clone & Isotype          | 9D9   Mouse IgG2b Kappa                                                                                                                                                                                     |
| Applications             | Flow cytometry (FC), and Immunohistochemistry - Frozen (IHC-F).                                                                                                                                             |
| Reactivity & Specificity | Mouse CTLA-4 protein. The recombinant 9D9 antibody for Flow Cytometry specifically binds to mouse CTLA-4 protein.                                                                                           |
| Source / Host            | The anti-mouse CTLA-4 monoclonal antibody (clone: 9D9) for Flow Cytometry was produced in mammalian cells.                                                                                                  |
| Formulation & Conjugate  | 0.2 uM filtered solution, pH 7.4, containing 0.09% sodium azide. Non-conjugated.                                                                                                                            |
| Purity                   | >95% by SDS-PAGE under reducing conditions.                                                                                                                                                                 |
| Shipping                 | The Recombinant Anti-mouse CTLA-4 Monoclonal Antibody (Clone: 9D9) for Flow Cytometry, Mouse IgG2b Kappa is shipped with ice pack. Upon receipt, store it immediately at the temperature recommended below. |
| Stability & Storage      | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, 2 to 8°C as supplied. Do not freeze it.                                                                 |

Biological Description & Background

CTLA-4, a 33-kilodalton immunoglobulin (Ig) superfamily protein, shares significant structural, genomic, and amino acid sequence similarities with CD28. Cytotoxic T-lymphocyte antigen-4 (CTLA-4) is an inhibitory molecule that competes with the stimulatory CD28 for binding to B7 on antigen presenting cells. CTLA-4 and CD28 are both presented on the surface of T-cells. Functioning as a critical immune checkpoint receptor, CTLA-4 plays a central role in downregulating immune responses to maintain homeostasis. It regulates protective immunity development, supports thymocyte activity, and ensures the induction and long-term maintenance of immunological tolerance. These biological properties position CTLA-4 as a dual-action therapeutic target: its agonist applications can suppress excessive immune activity in autoimmune disorders, while antagonist strategies enhance immune activation, particularly in cancer immunotherapy. This dual functionality underscores its clinical relevance in developing treatments for conditions ranging from autoimmune diseases to malignancies, making CTLA-4 a pivotal focus in modern immunotherapy research and precision medicine advancements.

This 9D9 antibody has been reported for use in flow cytometric analysis and blocks the mouse cytotoxic T lymphocyte antigen-4 (CTLA-4). Blocking CTLA-4 removes an inhibitory signal from reducing the activity of T lymphocytes.

Ordering & Technical Support

For custom volume ordering or inquiries, please visit the product webpage or contact our support team:

- **Product Webpage:** <https://www.ushelf.com/anti-mouse-ctla-4-monoclonal-antibody-pa007501-m2b/>
- **Order Phone:** 1-617-401-8149 | **Fax:** 1-617-606-5022
- **Support Email:** [message@sydlabs.com](mailto:message@sydlabs.com)