

Product Information

Contents: Functional Grade Purified anti-mouse CD152 (CTLA-4)

Catalog Number: 16-1521

Sizes: 50 ug, 100 ug, 500 ug

Formulation: Phosphate buffer pH 7.2,
150 mM NaCl, No NaN₃

Storage Conditions: Store at 4°C.

Avoid repeated freeze/thaw cycles.

KEEP CONTENT STERILE.

Endotoxin Level: Less than 0.001 ng/ug antibody, as determined by the LAL assay.

Clone: 9H10

Isotype: Golden Syrian Hamster IgG

Available Formats of This Product

| Cat. No. | Format | Excite (nm) | Emit (nm) | Reported Applications |
|----------|--|-------------|-----------|-----------------------|
| 12-1521 | DISCONTINUED - PE anti-mouse CD152 (CTLA-4) | 488 | 575 | FC |
| 14-1521 | Affinity Purified anti-mouse CD152 (CTLA-4) | N/A | N/A | FA FC IP |
| 16-1521 | Functional Grade* Purified anti-mouse CD152 (CTLA-4) | N/A | N/A | FA FC |

*Functional Grade™ (FG™): Azide-free, sterile-filtered, and endotoxin < 0.001 ng/μg.
Purified: Contains azide, not sterile-filtered, and not endotoxin tested.

Description

The 9H10 monoclonal antibody reacts with mouse CD152, also known as the cytotoxic T lymphocyte antigen-4 (CTLA-4). CTLA-4, a protein with structural similarities to CD28, is expressed on activated T cells and binds the B7 family members, CD80 (B7-1) and CD86 (B7-2), with higher affinity than CD28 does. CTLA-4 and CD28 appear to deliver opposing signals to T cells: while CD28 is a potent costimulator, CTLA-4 restricts the progression of T cells to an activated state by inhibiting IL-2 secretion and cellular proliferation. The cytoplasmic portion of CTLA-4 contains ER retention motifs, resulting in a large proportion of newly synthesized CTLA-4 in response to TCR signaling to be localized intracellularly.

Usage

For research use only, not for diagnostic or therapeutic use. The 9H10 antibody has been reported for use in flow cytometric analysis. It has also been reported for use in *in vitro* functional studies.

Applications Tested

The 9H10 antibody has been tested by flow cytometric analysis of resting and ConA-activated mouse splenocyte suspensions. This can be used at less than or equal to 0.5 μg per million cells in a 100 μl total staining volume. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Related Products

- Cat. 12-1521 PE anti-mouse CD152 (CTLA-4) (clone 9H10)
- Cat. 14-1521 Affinity Purified anti-mouse CD152 (CTLA-4) (clone 9H10)
- Cat. 12-1522 PE anti-mouse CD152 (CTLA-4) (clone UC10-4B9)
- Cat. 13-1522 Biotin anti-mouse CD152 (CTLA-4) (clone UC10-4B9)
- Cat. 14-1522 Affinity Purified anti-mouse CD152 (CTLA-4) (clone UC10-4B9)
- Cat. 16-1522 Functional Grade Purified anti-mouse CD152 (CTLA-4) (clone UC10-4B9)
- Cat. 11-4211 FITC Anti-Syrian Hamster IgG
- Cat. 13-4213 Biotin Anti-Syrian Hamster IgG (clone Polyclonal)
- Cat. 11-4317 Streptavidin-FITC (Fluorescein isothiocyanate)

Cat. 12-4317 Streptavidin-PE (Phycoerythrin)
Cat. 17-4317 Streptavidin Allophycocyanin (SA-APC)
Cat. 16-4914 Functional Grade Purified Golden Syrian Hamster IgG Isotype Control (clone n/a)

References

Krummel, M. F. and J. P. Allison (1995). "CD28 and CTLA-4 have opposing effects on the response of T cells to stimulation." J Exp Med 182(2): 459-65.

Krummel, M. F. and J. P. Allison (1996). "CTLA-4 engagement inhibits IL-2 accumulation and cell cycle progression upon activation of resting T cells." J Exp Med 183(6): 2533-40.

Chambers, C. A., M. F. Krummel, et al. (1996). "The role of CTLA-4 in the regulation and initiation of T-cell responses." Immunol Rev 153: 27-46.

Lucy S. K. Walker, Helen E. Wiggett, Fabrina M. C. Gaspal, Chandra R. Raykundalia, Margaret D. Goodall, Kai-Michael Toellner, and Peter J. L. Lane. 2003. Established T Cell-Driven Germinal Center B Cell Proliferation Is Independent of CD28 Signaling but Is Tightly Regulated Through CTLA-4. J Immunol. 170:91-98.