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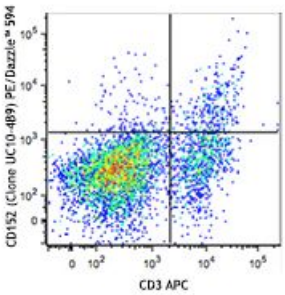
Product Data Sheet

PE/Dazzle™ 594 anti-mouse CD152

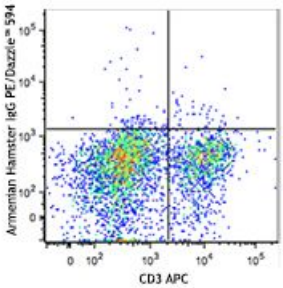
Catalog # / Size:	1131585 / 25 µg 1131590 / 100 µg
Clone:	UC10-4B9
Isotype:	Hamster IgG
Immunogen:	Mouse CTLA-4-mouse IgG2a fusion protein
Reactivity:	Mouse
Preparation:	The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Workshop Number:	V CD40.5
Concentration:	0.2



Con A+IL-2-stimulated C57BL/6 splenocytes (3 days) were stained with CD3 APC and CD152 (clone UC10-4B9) PE/Dazzle™ 594 (top) or Armenian Hamster IgG PE/Dazzle™ 594 isotype control (bottom).

Applications:

Applications:	Flow Cytometry
Recommended Usage:	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. * PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.



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Application Notes: The UC10-4B9 antibody can enhance T cell co-stimulation by blocking CTLA-4 interactions with the B7 co-receptors, favoring CD28 interactions. Additional reported applications (for the relevant formats) include: immunoprecipitation1, *in vitro* stimulation, *in vitro* and *in vivo* blocking[1-4] of ligand binding, and as Other capture antibody5. To reduce non-specific binding to cells bearing Fc-receptors, pre-incubation of cells with anti-mouse CD16/CD32, clone 93 (Cat. No. 101301/101302), is recommended prior to immunofluorescent staining. For most successful immunofluorescent staining results, it may be important to maximize signal over background by using a relatively bright fluorochrome-antibody conjugate (Cat. No. 106306) or by using a high sensitivity, three-layer staining technique (e.g., including a biotinylated anti-Armenian hamster IgG (Cat. No. 405501) second step, followed by SAv-PE (Cat. No. 405204)). The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 106308).

Application References:

1. Walunas TL, *et al.* 1994. *Immunity* 1:405. (Block, IP)
2. Cilio CM, *et al.* 1998. *J. Exp. Med.* 188:1239. (Block)
3. Issazadeh S, *et al.* 1999. *J. Immunol.* 162:761. (Block)
4. McCoy K, *et al.* 1997. *J. Exp. Med.* 186:183. (Block)
5. Hsu HC, *et al.* 2007. *J. Immunol.* 178:5357. (Other Capture)
6. Sugita S, *et al.* 2010. *Invest. Ophthalmol. Vis. Sci.* 51:5783. PubMed

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Description: CD152, also known as CTLA-4 or Ly-56, is a 33 kD member of the immunoglobulin superfamily. It is expressed on activated T and B lymphocytes. CD152 is similar to CD28 in amino acid sequence, structure, and genomic organization and these two receptors share common B7 family counter-receptors (B7-1, B7-2). Whereas CD28 delivers a costimulatory signal in T cell activation, CTLA-4 negatively regulates cell-mediated immune responses. CD152 is thought to play a role in the induction and maintenance of immunological tolerance as well as the development of protective immunity and thymocyte regulation.

Antigen References:

1. Barclay A, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. Allison JP, *et al.* 1995. *Science* 270:932.
3. Waterhouse P, *et al.* 1995. *Science* 270:985.
4. Linsley PS, *et al.* 1991. *J. Exp. Med.* 174:561.

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