PerCP/Fire™ 780 anti-mouse CD152 Antibody

Catalog# / Size	106339 / 25 µg 106340 / 100 µg
Clone	UC10-4B9
Regulatory Status	RUO
Other Names	Cytotoxic T Lymphocyte-Associated Antigen-4 (CTLA-4), Ly-56
Isotype	Armenian Hamster IgG
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.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Armenian Hamster
Immunogen	Mouse CTLA-4-mouse IgG2a fusion protein
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Preparation	The antibody was purified by affinity chromatography and conjugated with PerCP/Fire™ 780 under optimal conditions.
Concentration	0.2 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze**.
Application	FC - Quality tested
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. * PerCP/Fire 780 has a maximum excitation of 478 nm and a maximum emission of 780 nm.
Excitation Laser	Blue Laser (488 nm)
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: immunoprecipitation[1], *in vitro* stimulation, *in vitro* and *in vivo* blocking[1-4] of ligand binding, and as ELISA capture antibody[5]. 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 Ultra LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 106327).

Application References **(PubMed link indicates BioLegend citation)**	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. (ELISA Capture) 6. Sugita S, *et al.* 2010. *Invest. Ophthalmol. Vis. Sci.* 51:5783. PubMed
RRID	AB_3683133 (BioLegend Cat. No. 106339) AB_3683133 (BioLegend Cat. No. 106340)

Antigen Details

Structure	Ig superfamily, 33 kD
Distribution	Activated T cells and B cells
Function	Negative regulator of T cell activation
Ligand/Receptor	CD80 (B7-1), CD86 (B7-2)
Cell Type	B cells, T cells, Tregs
Biology Area	Immunology
Molecular Family	CD Molecules, Immune Checkpoint Receptors
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.
Gene ID	12477

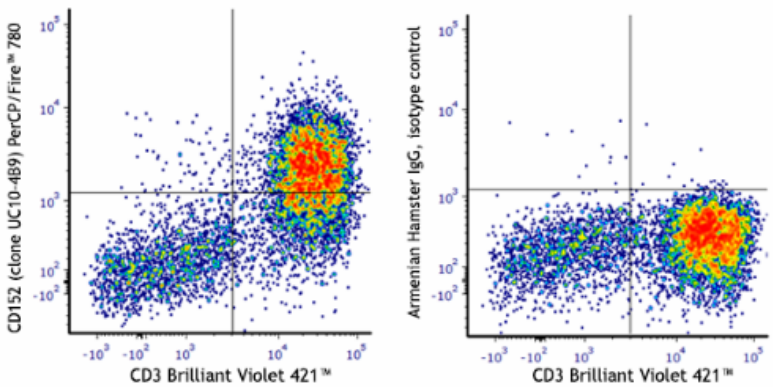
Related Protocols

- Cell Surface Flow Cytometry Staining Protocol

Other Formats

Biotin anti-mouse CD152, PE anti-mouse CD152, Purified anti-mouse CD152, APC anti-mouse CD152, Brilliant Violet 421™ anti-mouse CD152, PE/Cyanine7 anti-mouse CD152, PerCP/Cyanine5.5 anti-mouse CD152, PE/Dazzle™ 594 anti-mouse CD152, Brilliant Violet 605™ anti-mouse CD152, TotalSeq™-A0388 anti-mouse CD152, Ultra-LEAF™ Purified anti-mouse CD152, TotalSeq™-C0388 anti-mouse CD152, TotalSeq™-B0388 anti-mouse CD152, PE/Fire™ 640 anti-mouse CD152, PE/Fire™ 810 anti-mouse CD152, PE/Cyanine5 anti-mouse CD152, PerCP/Fire™ 780 anti-mouse CD152, PerCP/Fire™ 806 anti-mouse CD152

Product Data



Con A+IL-2 stimulated BALB/c splenocytes (3 days) were stained with anti-mouse CD3ε (clone 145-2C11) Brilliant Violet 421™ and anti-mouse CD152 (clone UC10-4B9) PerCP/Fire™ 780 (left) or Armenian hamster IgG PerCP/Fire™ 780 isotype control (right).

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