SONY

# Product Data Sheet

## Brilliant Violet 421™ anti-mouse CD152

**Catalog # / Size:** 1131560 / 50 µg
1131555 / 125 µl

**Clone:** UC10-4B9

**Isotype:** Hamster IgG

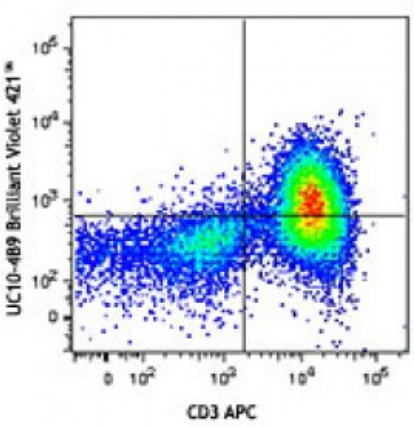
**Immunogen:** Mouse CTLA-4-mouse IgG2a fusion protein

**Reactivity:** Mouse

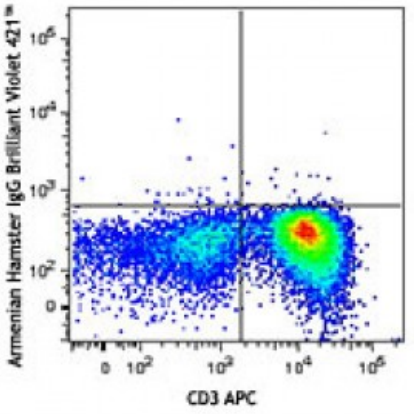
**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 421™ and unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

**Concentration:** microg sizes: 0.2 mg/ml
microL sizes: lot-specific




Con A+IL-2-stimulated C57BL/6 splenocytes (3 days) were stained with CD3 APC and CD152 (clone UC10-4B9) Brilliant Violet 421™ (top) or Armenian Hamster IgG Brilliant Violet 421™ 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 immunofluorescent staining using the microg size, the suggested use of this reagent is ≤1.0 microg per million cells in 100 microL volume. For immunofluorescent staining using the microL size, the suggested use of this reagent is ≤5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd.

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into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.

**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 ELISA 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. (ELISA 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*