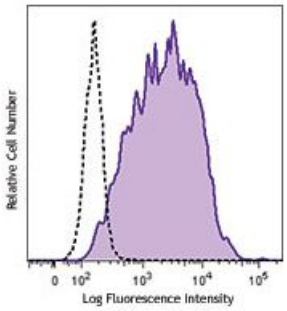
SONY

Product Data Sheet

Brilliant Violet 421™ anti-mouse CD80

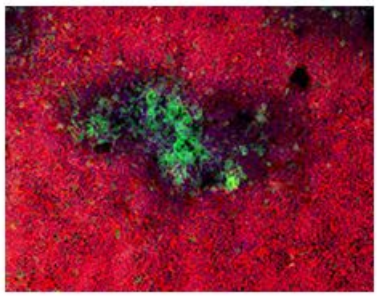
Catalog # / Size:	1123630 / 500 µl 1123625 / 125 µl
Clone:	16-10A1
Isotype:	Hamster IgG
Immunogen:	CHO cell line transfected with mouse B7 (CD80)
Reactivity:	Other
Preparation:	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions. The 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:	Lot-specific



LPS-stimulated (day 3) C57BL/6 mouse splenocytes stained with CD80 (clone 16-10A1) Brilliant Violet 421™ (filled histogram) or Armenian hamster IgG Brilliant Violet 421™ isotype control (open histogram).

Applications:

Applications:	Flow Cytometry



C57BL/6 mouse frozen thymus section was fixed with 4% paraformaldehyde (PFA) for 10 minutes at room temperature and blocked with 5% FBS for 30 minutes at room temperature. Then the section was stained with 10 microg/ml of CD80 (clone 16-10A1) Brilliant

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 ≤5 microL per million cells or 5 microL per 100 microL of whole blood. For immunohistochemical staining on frozen tissue sections, the suggested use is 5-10 microg/mL. 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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Application Notes:

Additional reported applications (for the relevant formats) include: immunoprecipitation2, *in vitro* and *in vivo* blocking of CTLA-4 Ig to CD80 by blocking costimulation of T cells by activated B cells[2-4], and immunohistochemical staining of acetone-fixed frozen sections[1,4]. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 104710).

Application References:

1. Harlan DM, *et al.* 1994. *P. Natl. Acad. Sci. USA* 91:3137. (IHC)
2. Razi-Wolf Z, *et al.* 1992. *P. Natl. Acad. Sci. USA* 89:4210. (Block, IP)
3. Hathcock KS, *et al.* 1994. *J. Exp. Med.* 180:631. (Block)
4. Herold KC, *et al.* 1997. *J. Immunol.* 158:984. (Block, IHC)
5. Ma XT, *et al.* 2006. *Cancer Res.* 66:1169.
6. Andoniou CE, *et al.* 2005. *Nature Immunology* 6:1011. (FC)
7. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366.
8. Turnquist HR, et al. 2007. *J. Immunol.* 178:7018.
9. Misra RS, *et al.* 2010. *J. Exp Med.* 207:1775. PubMed
10. del Rio ML, *et al.* 2011. *Transpl. Int.* 24:501. (FC) PubMed
11. White AJ, *et al.* 2014. *J. Immunol.* 192:2659. PubMed
12. Cowan JE, *et al.* 2014. *J Immunol.* 193:1204. PubMed

Description: CD80 is a 60 kD highly glycosylated protein. It is a member of the Ig superfamily and is also known as B7-1, B7, and Ly-53. CD80 is constitutively expressed on dendritic cells and monocytes/macrophages, and inducibly expressed on activated B and T cells. The ligation of CD28 on T cells with CD80 and CD86 (B7-2) on antigen presenting cells (such as dendritic cells, macrophages, and B cells) elicits co-stimulation of T cells resulting in enhanced cell activation, proliferation, and cytokine production. CD80 appears to be expressed later in the immune response than CD86. CD80 can also bind to CD152, also known as CTLA-4, to deliver an inhibitory signal to T cells.

Antigen References:

1. Barclay AN, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. Linsley PS, *et al.* 1991. *J. Exp. Med.* 174:561.
3. Salomon B, *et al.* 2001. *Annu. Rev. Immunol.* 19:225.