

Brilliant Violet 711™ anti-human CD80 Antibody

Catalog# / Size	305235 / 25 tests 305236 / 100 tests
Clone	2D10
Regulatory Status	RUO
Workshop	VI CD80.1
Other Names	B7-1, B7, BB1
Isotype	Mouse IgG1, κ
Description	CD80, also known as B7-1, B7, and BB1, is a 60 kD single chain type I glycoprotein belonging to the immunoglobulin superfamily. CD80 is expressed on activated B and T cells, macrophages, and dendritic cells. CD80 binds to CD28 and CD152 (CTLA-4). Along with CD86, CD80 plays a critical role in regulation of T cell activation. The interaction of CD80 with CD28 provides a potent costimulatory signal for T cell activation through the CD3 complex, while its interaction with CTLA-4 provides an inhibitory signal for T cell activation.

Product Details

Verified Reactivity	Human
Reported Reactivity	Rhesus
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 711™ under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
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	<p>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 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.</p> <p>Brilliant Violet 711™ excites at 405 nm and emits at 711 nm. The bandpass filter 710/50 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 711™ is a trademark of Sirigen Group Ltd.</p> <p>Learn more about Brilliant Violet™.</p> <p>This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner 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.</p>
Excitation Laser	Violet Laser (405 nm)
Application Notes	Additional reported applications (for the relevant formats) include: <i>in vitro</i> blocking of T cell activation, immunohistochemical staining of acetone-fixed frozen tissue sections ² ,

immunoprecipitation, and Western blotting³. The Ultra-LEAF™ purified antibody (Endotoxin <0.1 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for functional assays (Cat. Nos. 305245 & 305246).

Application References

1. Kishimoto T, *et al.* Eds. 1997. Leucocyte Typing VI. Garland Publishing Inc. London.
2. Battifora M. 1998. *J. Clin. Endocr. Metab.* 83:4130. (IHC)
3. Van der Merwe PA, *et al.* 1997. *J. Exp. Med.* 185:3. (WB)
4. Jayakumar A, *et al.* 2008. *Infect. Immun.* 76:2138. [PubMed](#)
5. Schubert DA, *et al.* 2012. *J. Exp Med.* 209:335. [PubMed](#)
6. Wen T, *et al.* 2014. *J Immunol.* 192:5481. [PubMed](#)

Product Citations

1. Paulikat AD, *et al.* 2022. *J Innate Immun.* . [PubMed](#)
2. Ireland RE, *et al.* 2022. *Viruses.* 14:. [PubMed](#)

RRID

AB_2734269 (BioLegend Cat. No. 305235)
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Antigen Details

Structure	Ig superfamily, type I transmembrane glycoprotein, 60 kD
Distribution	Activated B cells and T cells, macrophages, and dendritic cells
Function	T cell costimulation
Ligand/Receptor	CD28, CD152 (CTLA-4)
Cell Type	B cells, Dendritic cells, Macrophages, T cells, Tregs
Biology Area	Cell Biology, Costimulatory Molecules, Immunology, Neuroscience, Neuroscience Cell Markers
Molecular Family	CD Molecules, Immune Checkpoint Receptors
Antigen References	<ol style="list-style-type: none">1. Freeman G, <i>et al.</i> 1991. <i>J. Exp. Med.</i> 174:625.2. Linsley P, <i>et al.</i> 1996. <i>Immunity</i> 4:535.3. Linsley P, <i>et al.</i> 1991. <i>J. Exp. Med.</i> 174:561.
Gene ID	941

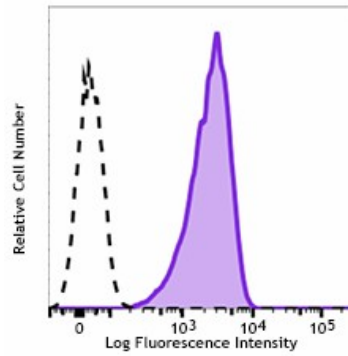
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Biotin anti-human CD80, FITC anti-human CD80, PE anti-human CD80, PE/Cyanine5 anti-human CD80, Purified anti-human CD80, Alexa Fluor® 488 anti-human CD80, Alexa Fluor® 647 anti-human CD80, PE/Cyanine7 anti-human CD80, APC anti-human CD80, Brilliant Violet 650™ anti-human CD80, Brilliant Violet 421™ anti-human CD80, Brilliant Violet 605™ anti-human CD80, PE/Dazzle™ 594 anti-human CD80, PerCP/Cyanine5.5 anti-human CD80, Brilliant Violet 510™ anti-human CD80, Brilliant Violet 711™ anti-human CD80, Brilliant Violet 785™ anti-human CD80, TotalSeq™-A0005 anti-human CD80, TotalSeq™-B0005 anti-human CD80, TotalSeq™-C0005 anti-human CD80, Ultra-LEAF™ Purified anti-human CD80, Brilliant Violet 750™ anti-human CD80, TotalSeq™-D0005 anti-human CD80

Product Data



Human B-cell Burkitt's lymphoma cell line Raji was stained with CD80 (clone 2D10) Brilliant Violet 711™ (filled histogram) or mouse IgG1, κ Brilliant Violet 711™ isotype control (open histogram).

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