

## Brilliant Violet 421™ anti-human CD86 Antibody

<b>Catalog# / Size</b>	305425 / 25 tests 305426 / 100 tests
<b>Clone</b>	IT2.2
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	VI CD86.8
<b>Other Names</b>	B7-2, B70
<b>Isotype</b>	Mouse IgG2b, κ
<b>Description</b>	CD86 is an 80 kD immunoglobulin superfamily member also known as B7-2, B70, and Ly-58. CD86 is expressed on activated B and T cells, monocytes/macrophages, dendritic cells, and astrocytes. CD86, along with CD80, is the ligand of CD28 and CD152 (CTLA-4). CD86 is expressed earlier in the immune response than CD80. CD86 has also been shown to be involved in immunoglobulin class-switching and triggering of NK cell-mediated cytotoxicity. CD86 binds to CD28 to transduce costimulatory signals for T cell activation, proliferation, and cytokine production. CD86 can bind to CD152 as well, also known as CTLA-4, to deliver an inhibitory signal to T cells.

### Product Details

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<b>Verified Reactivity</b>	Human, Cynomolgus, Rhesus
<b>Reported Reactivity</b>	African Green, Baboon, Capuchin Monkey, Common Marmoset, Cotton-topped Tamarin, Chimpanzee
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . 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.  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.  <a href="#">Learn more about Brilliant Violet™.</a>  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.
<b>Excitation Laser</b>	Violet Laser (405 nm)
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections <sup>6</sup> , Western blotting <sup>3</sup> , and blocking of T cell activation <sup>2,4,5</sup> . The

Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for functional assays (Cat. Nos. 305449 & 305450).

### Application References

(PubMed link indicates BioLegend citation)

1. Kishimoto T, *et al.* Eds. 1997. Leucocyte Typing VI. Garland Publishing Inc. London.
2. Dieu M. 1998. *J. Exp. Med.* 188:373. (Block)
3. Esser M, *et al.* 2001. *J. Virol.* 75:6173. (WB)
4. Jeannin P, *et al.* 1999. *J. Immunol.* 162:2044. (Block)
5. Kapsogeorgou EK, *et al.* 2001. *J. Immunol.* 166:3107. (Block)
6. Geissmann F, *et al.* 2001. *Blood* 97:1241. (IHC)

### Product Citations

1. Wenthe J, *et al.* 2021. Cancer Immunology Immunotherapy. . [PubMed](#)
2. Eriksson E, *et al.* 2016. Gene Ther. 10.1038/gt.2016.80. [PubMed](#)
3. Woolsey C *et al.* 2019. Cell Rep. 28(12):3032-3046 . [PubMed](#)
4. Waight JD, *et al.* 2018. Cancer Cell. 33:1033. [PubMed](#)
5. Zhao Y, *et al.* 2020. Immunity. 51(6):1059-1073.e9.. [PubMed](#)
6. Arenas EJ, *et al.* 2021. Nat Commun. 12:1237. [PubMed](#)
7. Upasani V, *et al.* 2019. Front Immunol. 2.152777778. [PubMed](#)

### RRID

AB\_10899582 (BioLegend Cat. No. 305425)  
AB\_11204252 (BioLegend Cat. No. 305426)

## Antigen Details

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<b>Structure</b>	Ig superfamily, single-chain transmembrane glycoprotein, 80 kD
<b>Distribution</b>	Monocytes/macrophages, activated B cells and T cells, dendritic cells
<b>Function</b>	T cell costimulation
<b>Ligand/Receptor</b>	CD28, CD152
<b>Cell Type</b>	B cells, Dendritic cells, Macrophages, Monocytes, T cells, Tregs
<b>Biology Area</b>	Cell Biology, Costimulatory Molecules, Immunology, Neuroscience, Neuroscience Cell Markers
<b>Molecular Family</b>	CD Molecules, Immune Checkpoint Receptors
<b>Antigen References</b>	1. Hathcock K, <i>et al.</i> 1996. <i>Adv. Immunol.</i> 62:131. 2. June C, <i>et al.</i> 1994. <i>Immunol. Today</i> 15:321.
<b>Gene ID</b>	<a href="#">942</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

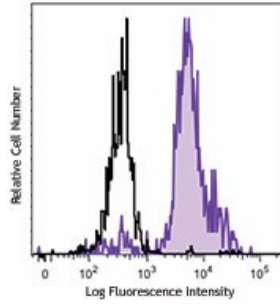
## Other Formats

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Biotin anti-human CD86, PE anti-human CD86, PE/Cyanine5 anti-human CD86, Purified anti-human CD86, APC anti-human CD86, Alexa Fluor® 488 anti-human CD86, Alexa Fluor® 647 anti-human CD86, Pacific Blue™ anti-human CD86, PE/Cyanine7 anti-human CD86, PerCP/Cyanine5.5 anti-human CD86, Brilliant Violet 421™ anti-human CD86, Brilliant Violet 650™ anti-human CD86, Brilliant Violet 605™ anti-human CD86, Brilliant Violet 510™ anti-human CD86, PE/Dazzle™ 594 anti-human CD86, Purified anti-human CD86 (Maxpar® Ready), Brilliant Violet 711™ anti-human CD86, Brilliant Violet 785™ anti-human CD86, TotalSeq™-A0006 anti-human CD86, TotalSeq™-B0006 anti-human CD86, TotalSeq™-C0006 anti-human CD86, Ultra-LEAF™ Purified anti-human CD86, KIRAVIA Blue 520™ anti-human CD86, TotalSeq™-D0006 anti-human CD86, PE/Fire™ 810 anti-human CD86, PE/Fire™ 640 anti-human CD86

## Product Data

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Human peripheral blood monocytes were stained with CD86 (clone IT2.2) Brilliant Violet 421™ (filled histogram) or mouse IgG2b, κ Brilliant Violet 421™ isotype control (open histogram).

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 [www.biolegend.com](http://www.biolegend.com)  
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587