

## Brilliant Violet 785™ anti-human CD86 Antibody

<b>Catalog# / Size</b>	305441 / 25 tests 305442 / 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 785™ 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 785™ excites at 405 nm and emits at 785 nm. The bandpass filter 780/60 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. <b>Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.</b> Refer to your instrument manual or manufacturer for support. Brilliant Violet 785™ is a trademark of Sirigen Group Ltd.  <a href="#">Learn more about Brilliant Violet™.</a>
<b>Excitation Laser</b>	Violet Laser (405 nm)

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**Application Notes** 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. Walsh RE, *et al.* 2020. *MAbs.* 12:1764829. [PubMed](#)
2. Aung A, *et al.* 2020. *Cancer Res.* 80:263. [PubMed](#)
3. Céspedes PF, *et al.* 2022. *Nat Commun.* 13:3460. [PubMed](#)

**RRID**  
AB\_2616793 (BioLegend Cat. No. 305441)  
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## Antigen Details

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**Structure** Ig superfamily, single-chain transmembrane glycoprotein, 80 kD

**Distribution** Monocytes/macrophages, activated B cells and T cells, dendritic cells

**Function** T cell costimulation

**Ligand/Receptor** CD28, CD152

**Cell Type** B cells, Dendritic cells, Macrophages, Monocytes, T cells, Tregs

**Biology Area** Cell Biology, Costimulatory Molecules, Immunology, Neuroscience, Neuroscience Cell Markers

**Molecular Family** CD Molecules, Immune Checkpoint Receptors

**Antigen References**

1. Hathcock K, *et al.* 1996. *Adv. Immunol.* 62:131.
2. June C, *et al.* 1994. *Immunol. Today* 15:321.

**Gene ID** [942](#)

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

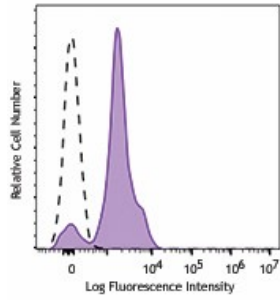
## Other Formats

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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 785™ (filled histogram) or mouse IgG2b, κ Brilliant Violet 785™ isotype control (open histogram).

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