

## Pacific Blue™ anti-mouse CD86 Antibody

<b>Catalog# / Size</b>	105021 / 25 µg 105022 / 100 µg
<b>Clone</b>	GL-1
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	B7-2, B70, Ly-58
<b>Isotype</b>	Rat IgG2a, 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, macrophages, dendritic cells, and astrocytes. CD86, along with CD80, is a 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 co-stimulatory signals for T cell activation, proliferation, and cytokine production. CD86 can also bind to CD152, also known as CTLA-4, to deliver an inhibitory signal to T cells.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	LPS-activated CBA/Ca mouse splenic B cells
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions.
<b>Concentration</b>	0.5 mg/ml
<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>	<p>Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a>. The suggested use of this reagent is ≤ 1.0 µg per 10<sup>6</sup> cells in 100 µl volume. It is highly recommended that the reagent be titrated for optimal performance for each application.</p> <p>* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.</p> <p>Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.</p> <p><a href="#">View full statement regarding label licenses</a></p>
<b>Excitation Laser</b>	Violet Laser (405 nm)
<b>Application Notes</b>	The GL-1 antibody can block the mixed lymphocyte reaction <i>in vitro</i> and has been shown to inhibit the priming of cytotoxic T lymphocytes <i>in vivo</i> (along with antibodies against B7-1). Additional reported applications (for the relevant formats) include: immunoprecipitation <sup>1</sup> , immunohistochemical staining of acetone-fixed frozen sections <sup>2,6</sup> , immunofluorescence microscopy, and <i>in vivo</i> and <i>in vitro</i> blocking of T cell responses <sup>1-6</sup> . GL-1 is not suitable for immunohistochemical staining of formalin-fixed paraffin sections. The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 105051-105056).
<b>Application References</b>	

**(PubMed link indicates BioLegend citation)**

1. Hathcock KS, *et al.* 1993. *Science* 262:905. (Block, IP)
2. Inaba KM, *et al.* 1994. *J. Exp. Med.* 180:1849. (Block, IHC)
3. Hathcock KS, *et al.* 1994. *J. Exp. Med.* 180:631. (Block)
4. Krummel MF, *et al.* 1995. *J. Exp. Med.* 182:459. (Block)
5. Liu Y, *et al.* 1997. *J. Exp. Med.* 185:251. (Block)
6. Herold KC, *et al.* 1997. *J. Immunol.* 158:984. (Block, IHC)
7. Shih FF, *et al.* 2006. *J. Immunol.* 176:3438. (FC)
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11. de Verteuil DA, *et al.* 2014. *J Immunol.* 193:1121. [PubMed](#)

**Product Citations**

1. Joly M, *et al.* 2014. *J Immunol.* 193:3947. [PubMed](#)
2. Rosenheinrich M, *et al.* 2015. *PLoS One.* 10: 0136290. [PubMed](#)
3. Uhlig K, *et al.* 2015. *J Virol.* 89: 9044-9060. [PubMed](#)
4. Brooks JF, *et al.* 2021. *Cell Reports.* 36(9):109645. [PubMed](#)
5. Thwe PM *et al.* 2017. *Cell metabolism.* 26(3):558-567. [PubMed](#)
6. Cieccko AE, *et al.* 2019. *Cell Rep.* 29:3073. [PubMed](#)
7. Shukla A, *et al.* 2021. *Adv Nanobiomed Res.* 1:. [PubMed](#)
8. Samarchith P Kurup *et al.* 2019. *Cell host & microbe.* 25(4):565-577. [PubMed](#)
9. Noviski M, *et al.* 2018. *Elife.* 7:e35074. [PubMed](#)
10. Shepherd T 2011. *Toxicol Sci.* 119:293. [PubMed](#)
11. Huber S, *et al.* 2016. *PLoS One.* 11: 0156462. [PubMed](#)
12. Xiao Y, *et al.* 2018. *Int Immunol.* 30:457. [PubMed](#)
13. Guo S, *et al.* 2021. *Sci Rep.* 11:23745. [PubMed](#)
14. Ding L *et al.* 2018. *Cell reports.* 25(11):2972-2980. [PubMed](#)

**RRID**

AB\_493467 (BioLegend Cat. No. 105021)  
AB\_493466 (BioLegend Cat. No. 105022)

## Antigen Details

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<b>Structure</b>	Ig superfamily, 80 kD
<b>Distribution</b>	B cells and T cells (upregulated upon activation), macrophages, dendritic cells, and astrocytes
<b>Function</b>	T cell costimulation, Ig class-switching, NK cell cytotoxicity
<b>Ligand/Receptor</b>	CD28, CD152 (CTLA-4)
<b>Cell Type</b>	Astrocytes, B cells, Dendritic cells, Macrophages, 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>	<ol style="list-style-type: none"><li>1. Barclay A, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press.</li><li>2. Hathcock KS, <i>et al.</i> 1993. <i>Science</i> 262:905.</li><li>3. Freeman GJ, <i>et al.</i> 1993. <i>Science</i> 262:907.</li><li>4. Carreno BM, <i>et al.</i> 2002. <i>Annu. Rev. Immunol.</i> 20:29.</li></ol>
<b>Gene ID</b>	<a href="#">12524</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

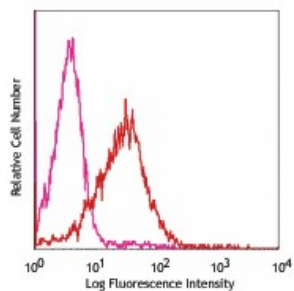
## Other Formats

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Brilliant Violet 650™ anti-mouse CD86, Biotin anti-mouse CD86, FITC anti-mouse CD86, PE anti-mouse CD86, Purified anti-mouse CD86, Brilliant Violet 605™ anti-mouse CD86, APC anti-mouse CD86, PE/Cyanine7 anti-mouse CD86, Alexa Fluor® 488 anti-mouse CD86, Alexa Fluor® 647 anti-mouse CD86, Pacific Blue™ anti-mouse CD86, PE/Cyanine5 anti-mouse CD86, Alexa Fluor® 700 anti-mouse CD86, PerCP/Cyanine5.5 anti-mouse CD86, PerCP anti-mouse CD86, APC/Cyanine7 anti-mouse CD86, Brilliant Violet 421™ anti-mouse CD86, Brilliant Violet 510™ anti-mouse CD86, PE/Dazzle™ 594 anti-mouse CD86, Brilliant Violet 785™ anti-mouse CD86, APC/Fire™ 750 anti-mouse CD86, TotalSeq™-A0200 anti-mouse CD86, TotalSeq™-B0200 anti-mouse CD86, Ultra-LEAF™ Purified anti-mouse CD86, TotalSeq™-C0200 anti-mouse CD86

## Product Data

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LPS (3-day) stimulated C57BL/6 mouse splenocytes stained with GL-1 Pacific Blue™

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