

PE/Dazzle™ 594 anti-mouse CD86 Antibody

Catalog# / Size	105041 / 25 µg 105042 / 100 µg
Clone	GL-1
Regulatory Status	RUO
Other Names	B7-2, B70, Ly-58
Isotype	Rat IgG2a, κ
Description	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

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	LPS-activated CBA/Ca mouse splenic B cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions.
Concentration	0.2 mg/ml
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	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 ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. * PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	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 ¹ , immunohistochemical staining of acetone-fixed frozen sections ^{2,6} , immunofluorescence microscopy, and <i>in vivo</i> and <i>in vitro</i> blocking of T cell responses ¹⁻⁶ . 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).
Application References	1. Hathcock KS, <i>et al.</i> 1993. <i>Science</i> 262:905. (Block, IP) 2. Inaba KM, <i>et al.</i> 1994. <i>J. Exp. Med.</i> 180:1849. (Block, IHC) 3. Hathcock KS, <i>et al.</i> 1994. <i>J. Exp. Med.</i> 180:631. (Block) 4. Krummel MF, <i>et al.</i> 1995. <i>J. Exp. Med.</i> 182:459. (Block)
(PubMed link indicates BioLegend citation)	

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)
8. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366.
9. Turnquist HR, *et al.* 2007. *J. Immunol.* 178:7018.
10. Klinger MB, *et al.* 2007. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 293:R677. [PubMed](#)
11. de Verteuil DA, *et al.* 2014. *J Immunol.* 193:1121. [PubMed](#)

Product Citations

1. Wang C, *et al.* 2021. *Cell Rep.* 37:110021. [PubMed](#)
2. Pizzurro GA, *et al.* 2021. *Cancers (Basel).* 13:. [PubMed](#)

RRID

AB_2566408 (BioLegend Cat. No. 105041)
 AB_2566409 (BioLegend Cat. No. 105042)

Antigen Details

Structure	Ig superfamily, 80 kD
Distribution	B cells and T cells (upregulated upon activation), macrophages, dendritic cells, and astrocytes
Function	T cell costimulation, Ig class-switching, NK cell cytotoxicity
Ligand/Receptor	CD28, CD152 (CTLA-4)
Cell Type	Astrocytes, 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. Barclay A, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press. 2. Hathcock KS, <i>et al.</i> 1993. <i>Science</i> 262:905. 3. Freeman GJ, <i>et al.</i> 1993. <i>Science</i> 262:907. 4. Carreno BM, <i>et al.</i> 2002. <i>Annu. Rev. Immunol.</i> 20:29.
Gene ID	12524

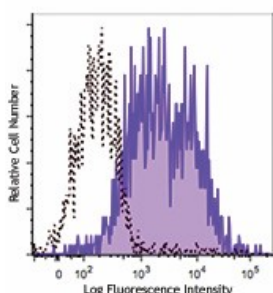
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

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



LPS-stimulated (three days) C57BL/6 mouse splenocytes were stained with GL-1 PE/Dazzle™ 594 (filled histogram) or rat IgG2a, κ PE/Dazzle™ 594 isotype control (open histogram).

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