

Spark PLUS B550™ anti-mouse CD86 Antibody

Catalog# / Size	105061 / 25 µg 105062 / 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 Spark PLUS B550™ 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. * Spark PLUS B550™ has a maximum excitation of 516 nm and a maximum emission of 540 nm.
Excitation Laser	Blue Laser (488 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

(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)
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](#)

RRID AB_3674966 (BioLegend Cat. No. 105061)
AB_3674966 (BioLegend Cat. No. 105062)

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

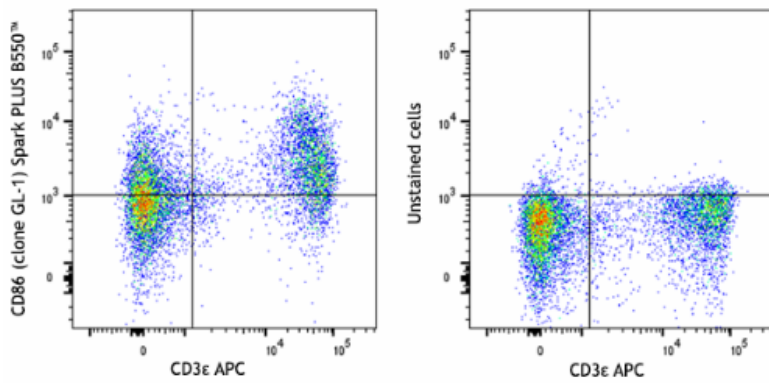
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

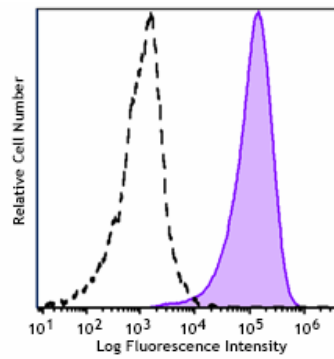
Other Formats

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, Spark Blue™ 574 anti-mouse CD86 (Flexi-Fluor™), Spark PLUS B550™ anti-mouse CD86, Spark YG™ 581 anti-mouse CD86 (Flexi-Fluor™), Spark YG™ 593 anti-mouse CD86 (Flexi-Fluor™) Antibody, Spark NIR™ 685 anti-mouse CD86 (Flexi-Fluor™) Antibody, Spark UV™ 387 anti-mouse CD86 (Flexi-Fluor™)

Product Data



C57BL/6 mouse splenocytes were stained with anti-mouse CD3ε (clone 145-2C11) APC and anti-mouse CD86 (clone GL-1) Spark PLUS B550™ (left) or stained with anti-mouse CD3ε (clone 145-2C11) APC only (right).



LPS-stimulated (3 days) C57BL/6 mouse splenocytes were stained with anti-mouse CD86 (clone GL-1) Spark PLUS B550™ (filled histogram). Open histogram represents unstained cells.

For Research Use Only. Not for diagnostic or therapeutic use.

This product is supplied subject to the terms and conditions, including the limited license, located at www.biolegend.com/terms ("Terms") and may be used only as provided in the Terms. Without limiting the foregoing, BioLegend products may not be used for any Commercial Purpose as defined in the Terms, resold in any form, used in manufacturing, or reverse engineered, sequenced, or otherwise studied or used to learn its design or composition without express written approval of BioLegend. Regardless of the information given in this document, user is solely responsible for determining any license requirements necessary for user's intended use and assumes all risk and liability arising from use of the product. BioLegend is not responsible for patent infringement or any other risks or liabilities whatsoever resulting from the use of its products.

BioLegend, the BioLegend logo, and all other trademarks are property of BioLegend, Inc. or their respective owners, and all rights are reserved.

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