

PerCP/Cyanine5.5 anti-human CD86 Antibody

Catalog# / Size	305419 / 25 tests 305420 / 100 tests
Clone	IT2.2
Regulatory Status	RUO
Workshop	VI CD86.8
Other Names	B7-2, B70
Isotype	Mouse IgG2b, 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, 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

Verified Reactivity	Human, Cynomolgus, Rhesus
Reported Reactivity	African Green, Baboon, Capuchin Monkey, Common Marmoset, Cotton-topped Tamarin, Chimpanzee
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography, and conjugated with PerCP/Cyanine5.5 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
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 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. * PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.
Excitation Laser	Blue Laser (488 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections ⁶ , Western blotting ³ , and blocking of T cell activation ^{2,4,5} . 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).
Additional Product Notes	BioLegend is in the process of converting the name PerCP/Cy5.5 to PerCP/Cyanine5.5. The dye molecule remains the same, so you should expect the same quality and performance from our PerCP/Cyanine5.5 products. Contact Technical Service if you have any questions.
Application References	1. Kishimoto T, <i>et al.</i> Eds. 1997. Leucocyte Typing VI. Garland Publishing Inc. London. 2. Dieu M. 1998. <i>J. Exp. Med.</i> 188:373. (Block)
(PubMed link indicates	

BioLegend citation)

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. Royle C, *et al.* 2014. *J Immunol.* 193:3538. [PubMed](#)
2. Akhmetzyanova ER, *et al.* 2019. *Front Cell Neurosci.* 12:507. [PubMed](#)
3. Palamides P, *et al.* 2016. *Dis Model Mech.* 9: 985 - 997. [PubMed](#)
4. Schwartz JA, *et al.* 2018. *J Virol.* 92:19. [PubMed](#)
5. Balan I, *et al.* 2022. *Front Immunol.* 13:940095. [PubMed](#)
6. Woodruff M, *et al.* 2020. *medRxiv.* . [PubMed](#)
7. Krakow S, *et al.* 2019. *Front Immunol.* 10:1484. [PubMed](#)
8. Wu Q, *et al.* 2022. *Cancer Immunol Res.* 10:182. [PubMed](#)
9. Mysore V, *et al.* 2021. *Med (N Y).* 2:1050. [PubMed](#)

RRID

AB_1575070 (BioLegend Cat. No. 305419)
AB_1575068 (BioLegend Cat. No. 305420)

Antigen Details

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, <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.
Gene ID	942

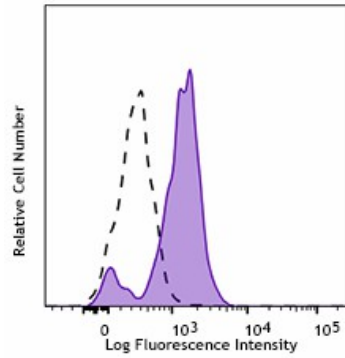
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

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



Human peripheral blood monocytes were stained with CD86 (clone IT2.2) PerCP/Cyanine5.5 (filled histogram) or Mouse IgG2b, ? PerCP/Cyanine5.5 isotype control (open histogram).

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BioLegend Inc., 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