PE/Cyanine7 anti-mouse IL-10 Antibody

Catalog# / Size	505025 / 25 µg 505026 / 100 µg
Clone	JES5-16E3
Regulatory Status	RUO
Other Names	Interleukin-10, Cytokine synthesis inhibitory factor (CSIF), B cell derived T cell growth factor (B-TCGF)
Isotype	Rat IgG2b, κ
Description	IL-10 was originally described as Cytokine Synthesis Inhibitory Factor (CSIF) by virtue of its ability to inhibit cytokine production by Th1 clones. IL-10 shares over 80% sequence homology with the Epstein-Barr virus protein BCRFI. IL-10 inhibits IFN-γ, TNF-β, and IL-2 production by Th1 clones; inhibits macrophage-mediated IL-1, IL-6, and TNF-α synthesis; suppresses the delayed type hypersensitivity response; stimulates Th2 cell response (which results in elevated antibody production); and promotes mast cell proliferation in combination with IL-4.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	*E. coli*-expressed, recombinant mouse IL-10
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with PE/Cyanine7 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	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular 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.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	**ELISA or ELISPOT Detection[1,9,11]:** The biotinylated JES5-16E3 antibody is useful as a detection antibody for a sandwich ELISA or ELISPOT assay, when used in conjunction with purified JES5-2A5 antibody (Cat. Nos. 504902 & 504904) as the capture antibody. **ELISA Capture**: The purified JES5-16E3 antibody is useful as the capture antibody in a sandwich ELISA when used in conjunction with the biotinylated JES5-2A5 antibody (Cat. No. 505003) as the detection antibody and recombinant mouse IL-10 (Cat. No. 575809) as the standard. **Neutralization[14]:** The Ultra-LEAF™ purified JES5-16E3 antibody can neutralize the bioactivity of natural or recombinant IL-10. **Flow Cytometry[3]**: The fluorochrome-labeled JES5-16E3 antibody is useful for intracellular immunofluorescent staining and flow cytometric analysis to identify IL-10-producing cells within mixed cell populations. **Additional reported applications (for relevant formats) include:** immunohistochemistry[3].
Additional Product Notes	BioLegend is in the process of converting the name PE/Cy7 to PE/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our PE/Cyanine7 products. Please contact Technical Service if you have any questions.

Application References

(PubMed link indicates BioLegend citation)

1. Simkin G, *et al.* 2000. *J. Immunol.* 164:2457.
2. Kitagaki K, *et al.* 2002. *Clin. Diagn. Lab Immunol.* 9:1260.
3. Khanna A, *et al.* 2000. *J. Immunol.* 164:1346.
4. Sander B, *et al.* 1993. *J. Immunol. Methods* 166:201.
5. Litton M, *et al.* 1994. *J. Immunol. Methods* 175:47.
6. Andersson U, *et al.* 1999. *Detection and qunatification of gene expression.* New York:Springer-Verlag.
7. Finkelman F, *et al.* 2003. *Curr. Prot. Immunol.* John Wiley & Sons New York. Unit 6.28.
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9. Brummel R and Lenert P. 2005. *J. Immunol.* 174:2429.
10. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366.
11. Xu G, *et al.* 2007. *J. Immunol.* 179:5358. PubMed
12. Brummel R, *et al.* 2005. *J. Immunol.*174:2429. PubMed
13. Kang YJ, *et al.* 2007. *Stem Cells* 25:1814. PubMed
14. Seo N, *et al.* 2001. *Immunology*. 103:449. (Neut)

Product Citations

1. Vossenkämper A, *et al.* 2014. Gastroenterology. 147:172. PubMed
2. Olguín J, *et al.* 2015. Microbes Infect. 17: 586-595. PubMed
3. D'Ambrosio A, *et al.* 2015. J Crohns Colitis. 10.1093/ecco-jcc/jjv216. PubMed
4. Delmas A, *et al.* 2016. PLoS One. 11: 0163305. PubMed
5. Wei C, *et al.* 2016. Cell Death Dis. 7:e2489. PubMed
6. Li A, *et al.* 2020. J Virol. 94:00:00. PubMed
7. Jiang L, *et al.* 2020. Cell. 183(5):1219-1233.e18. PubMed
8. Romain Bouziat *et al.* 2018. Cell host & microbe. 24(5):677-688 . PubMed
9. Amir M, *et al.* 2018. Cell Rep. 25:3733. PubMed
10. Sidwell T, *et al.* 2020. Nat Commun. 0.633333333. PubMed
11. Li S, *et al.* 2020. Cell Death Dis. 0.9875. PubMed

RRID

AB_11149682 (BioLegend Cat. No. 505025)
AB_11150582 (BioLegend Cat. No. 505026)

Antigen Details

Structure Acid-labile cytokine, dimer, 17-21 kD (Mammalian)

Cell Sources Activated $CD8^+$ T cells, Th0, Th2 subset of $CD4^+$ T cells, Ly-1^+ B cells, monocytes, macrophages, keratinocytes

Cell Targets T cells, B cells, mast cells, macrophages

Receptors IL-10R (CDw210)

Cell Type Tregs

Biology Area Immunology

Molecular Family Cytokines/Chemokines

Antigen References

1. Fitzgerald K, *et al.* Eds. 2001. The Cytokine FactsBook. Academic Press San Diego.
2. de Waal-Malefy R, *et al.* 1992. *Curr. Opin. Immunol.* 4:314.
3. Howard M, *et al.* 1992. *Immunol. Today* 13:198.
4. Quesniaux V. 1992. *Res. Immunol.* 143:385.
5. Norton SK, *et al.* 2008. *J. Immunol.* 180:2848.

Regulation Downregulated by IL-4, IL-10

Gene ID 16153

Related Protocols

Intracellular Cytokine Staining Protocol - Video

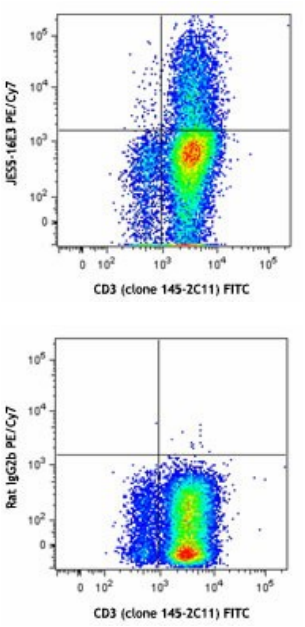
Intracellular Flow Cytometry Staining Protocol

Other Formats

PE/Dazzle™ 594 anti-mouse IL-10, APC/Cyanine7 anti-mouse IL-10, Ultra-LEAF™ Purified anti-mouse IL-10, Alexa Fluor® 647 anti-

mouse IL-10, Alexa Fluor® 488 anti-mouse IL-10, Pacific Blue™ anti-mouse IL-10, Brilliant Violet 421™ anti-mouse IL-10, PE/Cyanine7 anti-mouse IL-10, PerCP/Cyanine5.5 anti-mouse IL-10, Purified anti-mouse IL-10 (Maxpar® Ready), Brilliant Violet 605™ anti-mouse IL-10, APC anti-mouse IL-10, Biotin anti-mouse IL-10, FITC anti-mouse IL-10, PE anti-mouse IL-10, Purified anti-mouse IL-10

Product Data



PMA+ionomycin-stimulated Th2-polarized C57BL/6 mouse splenocytes (in the presence of monensin) were stained with CD3 FITC, fixed, permeabilized, and then stained with IL-10 (clone JES5-16E3) PE/Cyanine7 (top) or rat IgG2b PE/Cyanine7 isotype control (bottom).

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