

Alexa Fluor® 488 anti-mouse IL-10 Antibody

Catalog# / Size	505013 / 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 BCRF1. 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	<i>E. coli</i> -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 Alexa Fluor® 488 under optimal conditions.
Concentration	0.5 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	<p>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 10⁶ cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>* Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.</p> <p>Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.</p> <p>View full statement regarding label licenses</p>
Application Notes	<p>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.</p> <p>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.</p> <p>Neutralization¹⁴: The Ultra-LEAF™ purified JES5-16E3 antibody can neutralize the bioactivity of natural or recombinant IL-10.</p> <p>Flow Cytometry³: 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.</p> <p>Additional reported applications (for relevant formats) include: immunohistochemistry³.</p>

Application References

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 quantification of gene expression.* New York:Springer-Verlag.
7. Finkelman F, *et al.* 2003. *Curr. Prot. Immunol.* John Wiley & Sons New York. Unit 6.28.
8. Wang W, *et al.* 2004. *FASEB J.* 18:1043.
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. Wang X, *et al.* 2021. *Front Cell Dev Biol.* 632805:9. [PubMed](#)
2. Alves C, *et al.* 2015. *PLoS One.* 10: 0142972. [PubMed](#)

RRID

AB_493513 (BioLegend Cat. No. 505013)

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	<ol style="list-style-type: none"> 1. Fitzgerald K, <i>et al.</i> Eds. 2001. <i>The Cytokine FactsBook.</i> Academic Press San Diego. 2. de Waal-Malefy R, <i>et al.</i> 1992. <i>Curr. Opin. Immunol.</i> 4:314. 3. Howard M, <i>et al.</i> 1992. <i>Immunol. Today</i> 13:198. 4. Quesniaux V, 1992. <i>Res. Immunol.</i> 143:385. 5. Norton SK, <i>et al.</i> 2008. <i>J. Immunol.</i> 180:2848.
Regulation	Downregulated by IL-4, IL-10
Gene ID	16153

Related Protocols

[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

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, Alexa Fluor® 647 anti-mouse IL-10, PE/Cyanine7 anti-mouse IL-10, Alexa Fluor® 488 anti-mouse IL-10, Brilliant Violet 421™ anti-mouse IL-10, Pacific Blue™ 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, PE/Dazzle™ 594 anti-mouse IL-10, APC/Cyanine7 anti-mouse IL-10, Ultra-LEAF™ Purified anti-mouse IL-10

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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