

## Alexa Fluor® 647 anti-mouse IL-10 Antibody

<b>Catalog# / Size</b>	505016 / 25 µg 505014 / 100 µg
<b>Clone</b>	JES5-16E3
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Interleukin-10, Cytokine synthesis inhibitory factor (CSIF), B cell derived T cell growth factor (B-TCGF)
<b>Isotype</b>	Rat IgG2b, κ
<b>Description</b>	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

<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	<i>E. coli</i> -expressed, recombinant mouse IL-10
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">ICFC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">intracellular immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per 10 <sup>6</sup> cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.

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**Excitation Laser** Red Laser (633 nm)

**Application Notes**

**ELISA or ELISPOT Detection**<sup>1,9,11</sup>: 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**<sup>14</sup>: The Ultra-LEAF™ purified JES5-16E3 antibody can neutralize the bioactivity of natural or recombinant IL-10.

**Flow Cytometry**<sup>3</sup>: 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<sup>3</sup>.

## 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 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. Wu J *et al.* 2017. *Immunity.* 47(6):1114-1128. [PubMed](#)
2. Tuganbaev T, *et al.* 2020. *Cell.* 182(6):1441-1459.e21. [PubMed](#)
3. Jain RW, *et al.* 2018. *Cell Rep.* 25:3342. [PubMed](#)
4. Rio R, *et al.* 2012. *J Immunol.* 188:541. [PubMed](#)
5. Nasti A, *et al.* 2017. *Eur J Immunol.* 47:2163. [PubMed](#)

## RRID

AB\_2125096 (BioLegend Cat. No. 505016)  
AB\_493511 (BioLegend Cat. No. 505014)

## Antigen Details

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<b>Structure</b>	Acid-labile cytokine, dimer, 17-21 kD (Mammalian)
<b>Cell Sources</b>	Activated CD8 <sup>+</sup> T cells, Th0, Th2 subset of CD4 <sup>+</sup> T cells, Ly-1 <sup>+</sup> B cells, monocytes, macrophages, keratinocytes
<b>Cell Targets</b>	T cells, B cells, mast cells, macrophages
<b>Receptors</b>	IL-10R (CDw210)
<b>Cell Type</b>	Tregs
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	Cytokines/Chemokines
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Fitzgerald K, <i>et al.</i> Eds. 2001. <i>The Cytokine FactsBook.</i> Academic Press San Diego.</li><li>2. de Waal-Malefy R, <i>et al.</i> 1992. <i>Curr. Opin. Immunol.</i> 4:314.</li><li>3. Howard M, <i>et al.</i> 1992. <i>Immunol. Today</i> 13:198.</li><li>4. Quesniaux V. 1992. <i>Res. Immunol.</i> 143:385.</li><li>5. Norton SK, <i>et al.</i> 2008. <i>J. Immunol.</i> 180:2848.</li></ol>
<b>Regulation</b>	Downregulated by IL-4, IL-10
<b>Gene ID</b>	<a href="#">16153</a>

## Related Protocols

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

[Intracellular Flow Cytometry Staining Protocol](#)

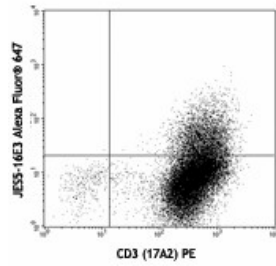
## Other Formats

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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

## Product Data

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PMA/ionomycin-stimulated Th2-polarized Balb/c mouse splenocytes were intracellularly stained with JES5-16E3 Alexa Fluor® 647 and CD3 (17A2) PE

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