

Biotin anti-mouse IL-10 Antibody

Catalog# / Size	505003 / 50 µg 505004 / 500 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 biotin under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Do not freeze.
Application	ELISA Detection , ELISPOT Detection , ICFC
Recommended Usage	Each lot of this antibody is quality control tested by ELISA assay . For ELISA or ELISPOT detection, the antibody should be titrated between 0.25-1.0 µg/ml to determine optimal conditions. To obtain a linear standard curve, serial dilutions of IL-10 recombinant protein ranging from 2000 to 15 pg/ml are recommended for each ELISA plate. It is recommended that the reagent be titrated for optimal performance for each application.
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

(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.
- Finkelman F, *et al.* 2003. *Curr. Prot. Immunol.* John Wiley & Sons New York. Unit 6.28.
 - Wang W, *et al.* 2004. *FASEB J.* 18:1043.
 - Brummel R and Lenert P. 2005. *J. Immunol.* 174:2429.
 - Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366.
 - Xu G, *et al.* 2007. *J. Immunol.* 179:5358. [PubMed](#)
 - Brummel R, *et al.* 2005. *J. Immunol.* 174:2429. [PubMed](#)
 - Kang YJ, *et al.* 2007. *Stem Cells* 25:1814. [PubMed](#)
 - Seo N, *et al.* 2001. *Immunology.* 103:449. (Neut)

Product Citations

- Godebu E, *et al.* 2008. *J Immunol.* 181:1798. [PubMed](#)
- Cox N, *et al.* 2015. *Proc Natl Acad Sci U S A.* 112: 8385 - 8390. [PubMed](#)
- Campos-Mora M, *et al.* 2019. *Front Immunol.* 1.029166667. [PubMed](#)
- Yan J, *et al.* 2020. *Cell Rep.* 107820:31. [PubMed](#)

RRID

AB_315357 (BioLegend Cat. No. 505003)
AB_315358 (BioLegend Cat. No. 505004)

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">Fitzgerald K, <i>et al.</i> Eds. 2001. <i>The Cytokine FactsBook.</i> Academic Press San Diego.de Waal-Malefy R, <i>et al.</i> 1992. <i>Curr. Opin. Immunol.</i> 4:314.Howard M, <i>et al.</i> 1992. <i>Immunol. Today</i> 13:198.Quesniaux V. 1992. <i>Res. Immunol.</i> 143:385.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

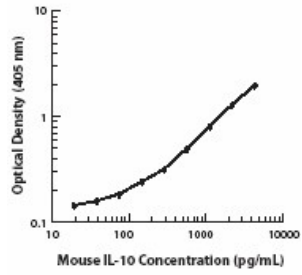
[Active Protocols: Sandwich ELISA - Video](#)

[Sandwich ELISA 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

Product Data



For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

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