Brilliant Violet 605™ anti-mouse IL-10 Antibody

Catalog# / Size	505031 / 50 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 and BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 605™ 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 ≤0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. Brilliant Violet 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. **Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.** Refer to your instrument manual or manufacturer for support. Brilliant Violet 605™ is a trademark of Sirigen Group Ltd. Learn more about Brilliant Violet™. This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.
Excitation Laser	Violet Laser (405 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].

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 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.
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. Acharya N, *et al.* 2020. Immunity. 53(3):658-671.e6. PubMed
2. Garcia-Dominguez D, *et al.* 2022. Front Immunol. 13:948335. PubMed
3. Link CWM, *et al.* 2020. Front Immunol. 11:596772. PubMed
4. Hering L, *et al.* 2020. Front Immunol. 1.747222222. PubMed

RRID AB_2563146 (BioLegend Cat. No. 505031)

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

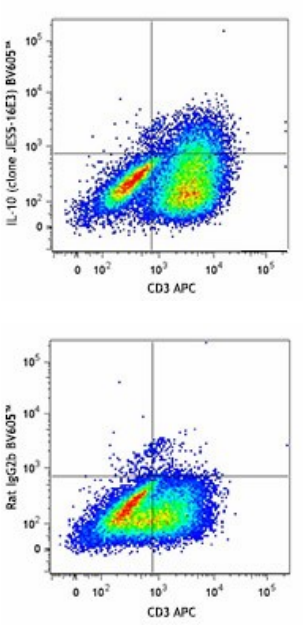
Surface and Intracellular Cytokine Staining for Flow Cytometry - Video

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

Product Data



PMA+ionomycin-stimulated Th2-polarized BALB/c mouse splenocytes (in the presence of monensin) were stained with CD3 APC, fixed, permeabilized, and then stained with IL-10 (clone JES5-16E3) Brilliant Violet 605™ (top) or rat IgG2b Brilliant Violet 605™ isotype control (bottom).

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