PE anti-human IL-10 Antibody

Catalog# / Size	506804 / 100 tests
Clone	JES3-19F1
Regulatory Status	RUO
Other Names	Interleukin 10, B cell derived T cell growth factor (B-TCGF), Cytokine synthesis inhibitory factor (CSIF), T-cell growth inhibitory factor (TGIF)
Isotype	Rat IgG2a, 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. The biological activities of IL-10 include inhibition of macrophage-mediated cytokine synthesis, suppression of the delayed type hypersensitivity response, and stimulation of the Th2 cell response, which results in elevated antibody production. The JES3-19F1 antibody reacts with human and viral interleukin-10 (IL-10). The JES3-19F1 antibody can neutralize the bioactivity of natural or recombinant IL-10.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	COS-expressed recombinant human 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 PE under optimal conditions.
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 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	**ELISA or ELISPOT Capture[1-4]:** The Purified JES3-19F1 antibody is useful as the capture antibody in a sandwich ELISA or ELISPOT assay, when used in conjunction with the biotinylated JES3-12G8 antibody (Cat. Nos. 501502 & 501503) as the detecting antibody. The Ultra-LEAF™ Purified antibody is suggested for ELISPOT capture. For use as an ELISPOT capture antibody, a concentration range of 4.0 - 8.0 µg/ml is recommended. **Flow Cytometry:** The fluorochrome-labeled JES3-19F1 antibody is useful for intracellular immunofluorescent staining and flow cytometric analysis to identify IL-10 -producing cells within mixed cell populations. For intracellular cytokine staining protocol, please visit www.biolegend.com and click on the support section. **Neutralization[1,2]:** The Ultra-LEAF™ Purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for neutralization of human IL-10 bioactivity (Cat. Nos. 506814 & 506815). **Additional reported applications (for the relevant formats) include:** Western blotting, immunohistochemical staining[5,6] of paraformaldehyde-fixed, saponin-treated frozen tissue sections, and immunocytochemistry. **Note:** For testing human IL-10 in serum or plasma, BioLegend's ELISA Max™ Sets (Cat. No. 430601 to 430606) are specially developed and recommended.
Application References **(PubMed link indicates**	1. Abrams J, *et al.* 1992. *Immunol. Rev.* 127:5. 2. Gotlieb W, *et al.* 1992. *Cytokine* 4:385.

BioLegend citation)	3. Yssel H, *et al.* 1992. *J. Immunol.* 149:2378. 4. Burdin N, *et al.* 1993. *J. Exp. Med.* 177:295. 5. Andersson U, *et al.* 1999. *Detection and quantification of gene expression*. New York: Springer-Verlag. 6. Andersson J, *et al.* 1994. *Immunology* 83:16.
Product Citations	1. de Jonge K *et al.* 2019. Scientific reports. 9(1):4487 . PubMed 2. Boyle M, *et al.* 2015. J Infect Dis. 212: 416-425. PubMed 3. Piao HY, *et al.* 2022. J Exp Clin Cancer Res. 41:174. PubMed 4. Shey M, *et al.* 2014. J Immunol. 192:4833. PubMed 5. Cerny V, *et al.* 2021. Cent Eur J Immunol. 45:393. PubMed 6. de Jonge K, *et al.* 2021. OncoImmunology. 10(1):1873585. PubMed 7. Liu Y, *et al.* 2015. J Immunol. 194:5851. PubMed 8. Zischke J, *et al.* 2017. PLoS Pathogens. 13(6):e1006454. PubMed 9. Zarobkiewicz M, *et al.* 2020. Cancers (Basel). 12:00. PubMed 10. Jin J, *et al.* 2014. PLoS One. 9:104753. PubMed 11. Benner M, *et al.* 2020. Cell Rep. 32:108204. PubMed 12. Baguma R, *et al.* 2017. PLoS One. 10.1371/journal.pone.0184563. PubMed
RRID	AB_315454 (BioLegend Cat. No. 506804)

Antigen Details

Structure	Acid-labile cytokine; dimer; 35-40 kD (Mammalian)
Bioactivity	Inhibit IFN-γ, TNF-β, IL-2 production by T_H1 clones; inhibits macrophage-mediated IL-1, IL-6, TNF-α synthesis; suppress delayed type hypersensitivity response; stimulate T_H2 cell response; mast cell proliferation in
Cell Sources	Activated $CD8^+$ and $CD4^+$ T cells, activated monocytes, mast cells, Ly-1 B (mouse)
Cell Targets	T cells, B cells, mast cells, macrophages
Receptors	IL-10R (CDw210)
Cell Type	Tregs
Biology Area	Cell Biology, Immunology, Neuroinflammation, Neuroscience
Molecular Family	Cytokines/Chemokines
Antigen References	1. Fitzgerald K, *et al.* Eds. 2001. The Cytokine FactsBook. Academic Press San Diego. 2. de Waal-Malefyt R, *et al.* 1992. *Curr. Opin. Immunol.* 4:314. 3. Howard M, *et al.* 1992. *Immunol. Today*. 13:198. 4. Quesniaux V. 1992. *Research Immunol.* 143:385.
Regulation	Production inhibited by IL-4, IL-10
Gene ID	3586

Related Protocols

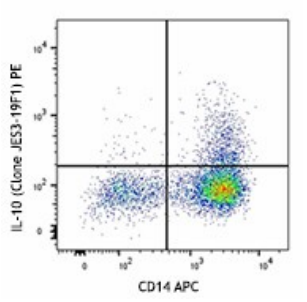
Surface and Intracellular Cytokine Staining for Flow Cytometry - Video

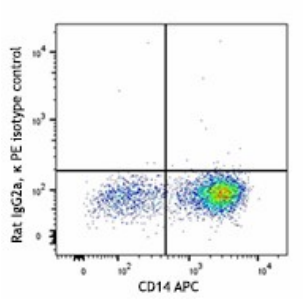
Intracellular Flow Cytometry Staining Protocol

Other Formats

APC anti-human IL-10, PE anti-human IL-10, Purified anti-human IL-10, PE/Dazzle™ 594 anti-human IL-10, Ultra-LEAF™ Purified anti-human IL-10

Product Data





LPS-stimulated (in the presence of monensin, 18 hours) human peripheral blood mononuclear cells were surface stained with CD14 APC, then fixed with Fixation Buffer permeabilized with Permeabilization Wash Buffer and intracellularly stained with anti-human IL-10 (clone JES3-19F1) PE (top) or rat IgG2a, κ PE isotype control (bottom). Data shown was gated on monocyte population.

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