

PE anti-human IL-5 Antibody

Catalog# / Size	500903 / 25 tests 500904 / 100 tests
Clone	JES1-39D10
Regulatory Status	RUO
Other Names	Interleukin-5, Eosinophil differentiation factor (EDF), Eosinophil colony stimulating factor (Eo-CSF), B cell growth factor-2 (BCGF-2), B cell differentiation factor for IgM (BCDF-m), IgA enhancing factor (IgA-EF), T cell replacing factor-1 (TRF-1)
Isotype	Rat IgG2a, κ
Description	IL-5 is a homodimeric, disulphide-linked protein produced by T-cells. Monomeric human IL-5 is a 126 amino acid protein with a reported molecular weight of 26 kD for the homodimeric protein. Mouse and human IL-5 are approximately 70% identical. IL-5 has been shown to promote the growth of immature hematopoietic BFU-E progenitors, stimulate the activation and differentiation of eosinophils, and promote the generation of cytotoxic lymphocytes. The JES1-39D10 antibody can neutralize the bioactivity of natural or recombinant IL-5.

Product Details

Verified Reactivity	Human
Reported Reactivity	Cynomolgus, Rhesus
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	COS-expressed, recombinant human IL-5
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 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	ELISA¹⁻³ or ELISPOT⁴⁻⁶ Capture: The purified JES1-39D10 antibody is useful as the capture antibody in a sandwich ELISA or ELISPOT, when used in conjunction with the biotinylated JES1-5A10 (Cat. No. 501002) antibody as the detecting antibody. The LEAF™ purified antibody is suggested for ELISPOT capture. Neutralization¹: The LEAF™ purified antibody (Endotoxin <0.1 EU/ μ g, Azide-Free, 0.2 μ m filtered) is recommended for neutralization of human IL-4 bioactivity (Cat. No. 500907). Additional reported applications (for the relevant formats) include: Western blotting, immunohistochemical staining ^{8,9} of paraformaldehyde-fixed, saponin-treated frozen tissue sections, and immunocytochemistry. Note: For testing human IL-5 in serum or plasma, BioLegend's ELISA Max™ Sets (Cat. No. 430401 & 430404) are specially developed and recommended.

Application References

(PubMed link indicates BioLegend citation)

1. Abrams, J., *et al.* 1992. *Immunol. Rev.* 127:5.
2. Butterfield, J., *et al.* 1992. *Blood* 79:688.
3. Abrams, J., *et al.* 1994. *Eosinophils in Allergy and Inflammation*. Marcel Dekker, New York. p.133.
4. Klinman, D., *et al.* 1994. *Curr. Prot. Immunol.*. John Wiley and Sons, New York. Unit 6.19.6.

5. Mahanty, S., *et al.* 1992. *J. Immunol.* 148:3567.
6. Limaye, A., *et al.* 1991. *J. Clin. Inv.* 88:1418.
7. Prussin, C., *et al.* 1995. *J. Immunol. Meth.* 188:117.
8. Andersson, U., *et al.* 1999. *Detection and quantification of gene expression.* New York:Springer-Verlag.
9. Andersson, J., *et al.* 1994. *Immunology* 83:16.

Product Citations

1. Golebski K, *et al.* 2019. *Nat Commun.* 10:2162. [PubMed](#)
2. Numazaki M, *et al.* 2021. *J Pharmacol Exp Ther.* :JPET-AR-2021-000686. [PubMed](#)
3. Dai G, *et al.* 2021. *JCI Insight.* 6:. [PubMed](#)
4. Golebski K, *et al.* 2021. *Immunity.* 54(2):291-307.e7. [PubMed](#)
5. Bal S, *et al.* 2016. *Nat Immunol.* 10.1038/ni.3444. [PubMed](#)

RRID

AB_315138 (BioLegend Cat. No. 500903)
 AB_315139 (BioLegend Cat. No. 500904)

Antigen Details

Structure	Cytokine; dimer; 45 kD (Mammalian)
Bioactivity	Growth/differentiation of eosinophils; proliferation/cell activation/differentiation of eosinophilic granulocytes
Cell Sources	Mast cells, T cells, bone marrow stromal cells
Cell Targets	Eosinophils
Receptors	Heterodimer IL-5R α (CD125); β -subunit (CDw131) in common with IL-3R, GM-CSFR
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. Takatsu, K., <i>et al.</i> 1988. <i>Immunol. Rev.</i> 102:107. 3. Takatsu, K. 1992. <i>Curr. Opin. Immunol.</i> 4:299. 4. Takatsu, K. 1991. <i>Microbiol. Immun.</i> 35:593.
Regulation	Upregulated by IL-2, platelet activating factor; downregulated by TGF- β
Gene ID	3567

Related Protocols

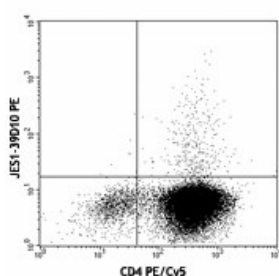
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

PE anti-human IL-5, Purified anti-human IL-5

Product Data



Enriched human CD4+ T cells were stimulated with PMA+ionomycin, then surface stained with CD4 PE/Cy5 and intracellular stained with JES1-39D10 PE

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