

Technical Data Sheet

Purified NA/LE Rat Anti-Human IL-5

Product Information

Material Number:	562175
Alternate Name:	EDF; Eosinophil differentiation factor; TRF; T-cell replacing factor
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	JES1-5A10
Immunogen:	Recombinant Human IL-5
Isotype:	Rat IgG2a
Reactivity:	QC Testing: Human
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2µm sterile filtered. Endotoxin level is ≤0.01 EU/µg (≤0.001 ng/µg) of protein as determined by the LAL assay.

Description

The JES1-5A10 monoclonal antibody specifically binds to the human Interleukin-5 (IL-5). IL-5 is a cytokine that is also known as T-cell replacing factor (TRF), Eosinophil differentiation factor (EDF), and B cell differentiation factor I. IL-5 is produced by T cells, mast cells, and eosinophils. IL-5 controls the generation, differentiation, activation and localization of eosinophils. IL-5 also activates and promotes the differentiation of basophils. IL-5 plays an important role in regulating cell-mediated immunity against parasitic infections and some tumors. High level IL-5 production is involved in some allergic diseases including asthma. IL-5 exerts its biological effects by binding to and signaling through high-affinity heterodimeric IL-5 receptors comprised of transmembrane IL-5 receptor alpha (IL-5Rα, aka, CD125) and beta common (βc, aka, CD131) chains. The βc chain serves as the common signaling subunit for the IL-5 receptor heterodimer as well as for the heterodimeric IL-3 and GM-CSF receptors. The immunogen used to generate the JES1-5A10 hybridoma was recombinant human IL-5. The JES1-5A10 antibody has been reported to cross react with IL-5 from rhesus monkey. This is a neutralizing antibody.

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application

ELISA	Routinely Tested
Neutralization	Reported
ELISPOT	Reported

Suggested Companion Products

Catalog Number	Name	Size	Clone
554606	Recombinant Human IL-5	5 µg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Abrams JS, Gleich GJ, Van Dyke RE, Silver JE. Eosinophil-active cytokines in human disease: development and use of monoclonal antibodies to IL-3, IL-5, GM-CSF. In: Gleich GJ and Kay AB, ed. *Eosinophils in Allergy and Inflammation*. New York: Dekker; 1994:133-157. (Clone-specific: ELISA)

Abrams JS, Roncarolo MG, Yssel H, Andersson U, Gleich GJ, Silver JE. Strategies of anti-cytokine monoclonal antibody development: immunoassay of IL-10 and IL-5 in clinical samples. *Immunol Rev*. 1992; 127:5-24. (Clone-specific: Neutralization)

Butterfield JH, Leiferman KM, Abrams J, et al. Elevated serum levels of interleukin-5 in patients with the syndrome of episodic angioedema and eosinophilia. *Blood*. 1992; 79(3):688-692. (Clone-specific: ELISA, Neutralization)

Fuss IJ, Neurath M, Boirivant M, Klein JS, de la Motte C, Strong SA, Fiocchi C, Strober W. Disparate CD4+ lamina propria (LP) lymphokine secretion profiles in inflammatory bowel disease. Crohn's disease LP cells manifest increased secretion of IFN-gamma, whereas ulcerative colitis LP cells manifest increased secretion of IL-5. *J Immunol*. 1996; 157(3):1261-1270. (Clone-specific: ELISPOT)

Klinman D and Nutman T. ELISPOT assay to detect cytokine-secreting murine and human cells. In: Coligan J, Kruisbeek A, Margulies D, Shevach E, Strober W, ed. *Current Protocols in Immunology*. 1994:6-19. (Clone-specific: ELISPOT)

Schwenger G, Mordvinov V, Fournier R, Czabotar P, Peroni S, Sanderson C. IL-5. In: Oppenheim JJ, Feldmann M, ed. *Cytokine Reference : A compendium of cytokines and other mediators of host defense*. London ; San Diego: Academic Press; 2001:861-875. (Biology)

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