

Technical Data Sheet

Purified NA/LE Rat Anti-Mouse IL-10

Product Information

Material Number:	554463
Alternate Name:	Interleukin-10; IL10; CSIF; Cytokine synthesis inhibitory factor
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	JES5-16E3
Immunogen:	Recombinant mouse IL-10
Isotype:	Rat IgG2b
Reactivity:	QC Testing: Mouse
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 JES5-16E3 monoclonal antibody specifically binds to the mouse cytokine, Interleukin-10 (IL-10). IL-10 is also known as Cytokine Synthesis Inhibitory Factor (CSIF). It is produced by various activated cell types including CD4+ T cells, CD8+ T cells, T regulatory cells, NK T cells, B1 B cells, NK cells, macrophages, dendritic cells, mast cells, granulocytes and keratinocytes. IL-10 plays a pivotal role in regulating immune responses and protecting the host from damage caused by inflammatory and autoimmune responses. IL-10 has numerous biological activities including the inhibition of cytokine synthesis by activated T cells, NK cells, monocytes, and macrophages. In the presence of accessory cells, IL-10 inhibits mitogen- or anti-CD3 induced proliferation of T lymphocytes. IL-10 has also been shown to costimulate the development of thymocytes, B cell differentiation and the generation of cytotoxic T cells. The immunogen used to generate the JES5-16E3 hybridoma was recombinant mouse IL-10. JES5-16E3 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

Intracellular staining (flow cytometry)	Routinely Tested
Neutralization	Tested During Development
ELISA	Tested During Development

Neutralization Activity:

This antibody has been reported to be useful for the neutralization of recombinant mouse IL-10 and may be measured with a proliferation assay using 2 ng/mL recombinant mouse IL-10 (Cat. No. 550070) and 50 pg/mL recombinant mouse IL-4 (Cat. No. 550067) to costimulate D36 indicator cells at 1×10^5 cells/mL.

50% Neutralization (ND50) at 2.5 – 20 ng/mL

≥ 95% Neutralization at 30 – 125 ng/mL

Recommended Assay Procedure:

ELISA: Biotin Rat Anti-Mouse IL-10 (Clone JES5-16E3, Cat. No. 554465) is useful as a detection antibody for sandwich ELISA for measuring mouse IL-10 protein levels and can be paired with Purified Rat Anti-Mouse IL-10 (Clone JES5-2A5, Cat. No. 551215) as the capture antibody along with recombinant mouse IL-10 (Cat. No. 550070) as the standard. For measuring mouse IL-10 in complex biological fluids, such as serum or plasma, investigators are highly encouraged to use the BD OptEIA™ Mouse IL-10 ELISA Set (Cat. No. 555252).

Flow Cytometry: The JES5-16E3 antibody is useful for flow cytometric analysis to identify and enumerate IL-10 producing cells within mixed cell populations. Direct conjugates of the JES5-16E3 antibody are especially suitable for these experiments, such as PE Rat Anti-Mouse IL-10 (Cat. No. 554467).

Suggested Companion Products

Catalog Number	Name	Size	Clone
556968	Purified NA/LE Rat IgG2b, κ Isotype Control	0.5 mg	A95-1
555252	Mouse IL-10 ELISA Set	20 plates	(none)

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Product Notices

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

References

Andersson U, Andersson J. Immunolabeling of cytokine-producing cells in tissues and in suspension. In: Fradelizie D, Emelie D, ed. *Cytokine Producing Cells*. Paris: Inserm; 1994:32-49. (Biology)

Litton MJ, Sander B, Murphy E, O'Garra A, Abrams JS. Early expression of cytokines in lymph nodes after treatment in vivo with Staphylococcus enterotoxin B. *J Immunol Methods*. 1994; 175(1):47-58. (Immunogen)

Sander B, Hoiden I, Andersson U, Moller E, Abrams JS. Similar frequencies and kinetics of cytokine producing cells in murine peripheral blood and spleen. Cytokine detection by immunoassay and intracellular immunostaining. *J Immunol Methods*. 1993; 166(2):201-214. (Immunogen)

Schlaak JF, Schmitt E, Hüls C, Meyer zum Büschenfelde KH, Fleischer B. A sensitive and specific bioassay for the detection of human interleukin-10. *J Immunol Methods*. 1994; 168(1):49-54. (Clone-specific)

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