Technical Data Sheet

Purified Rat Anti-Human IL-13

Product Information

Material Number:	**554570**
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	JES10-5A2
Immunogen:	Human recombinant IL-13
Isotype:	Rat IgG1
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

This antibody reacts with human interleukin-13, IL-13. The immunogen used to produce the JES10-5A2 hybridoma was COS-expressed recombinant human IL-13. This is a neutralizing antibody.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4°C.

Application Notes

Application

ELISA	Routinely Tested
Intracellular block/flow cytometry	Tested During Development
Neutralization	Tested During Development
Western blot	Reported
Immunohistochemistry	Reported

Recommended Assay Procedure:

ELISA Capture: The purified JES10-5A2 (Cat. No. 554570) is useful as a capture antibody for a sandwich ELISA for specifically measuring human IL-13 protein levels. Purified JES10-5A2 antibody can be paired with the biotinylated clone B69-2 mouse IgG1 anti-human IL-13 detection antibody (Cat. No. 555054), with recombinant human IL-13 as the standard. Purified JES10-5A2 antibody should be titrated 1.0 - 4.0 µg/ml to determine the optimal concentration for ELISA capture. To obtain linear standard curves, doubling dilutions of human IL-13 protein ranging from ~2,000 to 15 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology, please visit our website, www.bdbiosciences.com , and go to the protocols section or the chapter on ELISA in the Immune Function Handbook.

Note 1: This ELISA pair shows no cross-reactivity with any of the cytokines tested (e.g., mouse IL-1β, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-9, IL-10, IL-12 p70, IL-15, GM-CSF, IFN-γ, MCP-1, TCA-3, TNF; human IL-1α, IL-1β, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12 p70, IL-12 p40, IL-15, G-CSF, GM-CSF, IFN-γ, lymphotactin, MCP-1, MCP-2, MIP-1α, MIP-1β, NT-3, PDGF-AA, sCD23, SCF, TNF, LT-α, VEGF; rat IL-2, IL-4, IL-6, IL-10, GM-CSF, IFN-γ, TNF).

Note 2: This ELISA pair is recommended primarily for measuring cytokine from experimental cell culture systems. These ELISA reagents are not recommended for assay of serum or plasma samples.

Western Blot: The JES10-5A2 antibody (Cat. No. 554570) has been reported to be useful for Western blotting. Please note that this application is not routinely tested at BD Biosciences Pharmingen.

Neutralization: The NA/LE™ JES10-5A2 antibody (Cat. No. 554568) is useful for neutralization of human IL-13 bioactivity. A suitable NA/LE ™ isotype control to match the JES10-5A2 antibody is the R3-34 antibody, (Cat. No. 554682).

IF/Flow: The JES10-5A2 antibody is useful for immunofluorescent staining and flow cytometric analysis to identify and enumerate IL-13 producing cells within mixed cell populations. PE-conjugated JES10-5A2 antibody (Cat. No. 554571) is especially suitable for these studies. For specific methodology, please visit our web site, w ww.bdbiosciences.com , and go to the protocols section or the chapter on intracellular staining in the Immune Function Handbook.

Immunohistochemistry: The JES10-5A2 antibody is also reported to be useful for immunohistochemical staining studies. The purified JES10-5A2 antibody (Cat. No. 554570) may be used for the immunofluorescent staining of human IL-13, when used in conjunction with an

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appropriate FITC-conjugated polyclonal anti-rat Ig with no reactivity towards human Igs. For immunoenzymatic staining, the purified JES10-5A2 antibody should be detected with a biotin conjugated polyclonal anti-rat Ig, followed by an enzyme-conjugated avidin or streptavidin. The paraformaldehyde/saponin method described by J. Andersson et al. is recommended for this staining. A recommended titration range of the antibody for this staining is 2-5 µg/ml, with the optimal concentration dependent upon various factors including the type of tissue stained and the secondary reagents used. A suitable rat IgG1 isotype control for assessing the level of background staining on paraformaldehyde-fixed/saponin-permeabilized human cells or tissue is purified R3-34 antibody (Cat. No. 559072); use at comparable concentrations to antibody of interest.

Note: this antibody is not routinely tested in the IHC application.

Suggested Companion Products

Catalog Number	Name	Size	Clone
555054	Biotin Mouse Anti-Human IL-13	0.5 mg	B69-2
554568	Purified NA/LE Rat Anti-Human IL-13	0.5 mg	JES10-5A2
554682	Purified NA/LE Rat IgG1 κ Isotype Control	0.5 mg	R3-34
554571	PE Rat Anti-Human IL-13	0.1 mg	JES10-5A2

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.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Abrams J. Immunoenzymetric assay of mouse and human cytokines using NIP-labeled anti-cytokine antibodies. In: Coligan J, Kruisbeek A, Margulies D, Shevach E, Strober W, ed. *Current Protocols in Immunology.* New York: John Wiley and Sons; 1995:6.20-6.21. (Clone-specific: ELISA)

Andersson J, Abrams J, Bjork L, et al. Concomitant in vivo production of 19 different cytokines in human tonsils. *Immunology.* 1994; 83(1):16-24. (Clone-specific: Immunohistochemistry)

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. (Clone-specific)

Litton M, Andersson J, Bjork L, Fehniger T, Ulfgren AK, Andersson U. Cytoplasmic cytokine staining in individual cells. In: Debets and Savelkoul, ed. *Human Cytokine Protocols.* Humana Press; 1996. (Clone-specific)

McKenzie A, Zurawski G. Measurement of IL-13. In: Coligan, Kruisbeek, Shevak, Strober, ed. *Current Protocols in Immunology.* New York: John Wiley & Sons; 1994:18-19. (Clone-specific: ELISA, Neutralization)