# **Technical Data Sheet**

# **Biotin Rat Anti-Human IL-3**

### **Product Information**

 Material Number:
 554674

 Size:
 0.5 mg

 Concentration:
 0.5 mg/ml

 Clone:
 BVD3-1F9

Immunogen: Recombinant Human IL-3

Isotype: Rat IgG1

Reactivity: QC Testing: Human

Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

# Description

The BVD3-1F9 antibody reacts with human interleukin-3 (IL-3). The immunogen used to generate the BVD3-1F9 hybridoma was recombinant human IL-3. This is a weakly neutralizing antibody.

# **Preparation and Storage**

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed. Store undiluted at 4° C.

# **Application Notes**

#### Application

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	ELISA Detection	Routinely Tested	

#### **Recommended Assay Procedure:**

**ELISA Detection:** The biotinylated BVD3-1F9 antibody (Cat. No. 554674) is useful as a detection antibody for a sandwich ELISA for measuring human IL-3 protein levels. Biotinylated BVD3-1F9 antibody can be paired with the purified BVD8-3G11 antibody (Cat. No. 554672) as the capture antibody, with recombinant human IL-3 (Cat. No. 554604) as the standard. Biotinylated BVD3-1F9 antibody should be titrated (0.5 - 2.0 μg/ml) to determine optimal concentration for ELISA detection. To obtain linear standard curves, doubling dilutions of human IL-3 ranging from ~4,000 to 30 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology, please visit the protocols section or chapter on ELISA in the Immune Function Handbook, both of which are posted on our web site, www.bdbiosciences.com.

This ELISA pair shows no cross-reactivity with any of the cytokines tested (e.g., mouse IL-1 $\beta$ , IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-9, IL-10, IL-12 p70, IL-15, GM-CSF, IFN- $\gamma$ , MCP-1, TCA-3, TNF; human IL-1 $\alpha$ , IL-1 $\beta$ , IL-2, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12 p70, IL-12 p40, IL-13, IL-15, G-CSF, GM-CSF, IFN- $\gamma$ , lymphotactin, MCP-1, MCP-2, MIP-1 $\alpha$ , MIP-1 $\beta$ , NT-3, PDGF-AA, sCD23, SCF, TNF, LT- $\alpha$ , VEGF; rat IL-2, IL-4, IL-6, IL-10, GM-CSF, IFN- $\gamma$ , TNF).

This ELISA pair is recommended primarily for measuring cytokine from experimental cell culture systems. These ELISA reagents are not recommended for assaying serum samples. For testing human IL-3 in complex biological fluids such as serum or plasma, our BD OptEIA<sup>TM</sup> Human IL-3 ELISA Set (Cat. No. 555228) is recommended.

IC/Flow: PE- BVD3-1F9 is useful for intracellular cytokine flow cytometry (Cat. No. 554676). Purified BVD3-1F9 and recombinant human IL-3 (Cat. No. 554604) are useful specificity controls for this application.

# **Suggested Companion Products**

Catalog Number	Name	Size	Clone	
554604	Recombinant Human IL-3	10 μg	(none)	_
554672	Purified Rat Anti-Human IL-3	0.5 mg	BVD8-3G11	
555228	Mouse IL-3 ELISA Set	20 plates	(none)	

## **BD Biosciences**

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# **Product Notices**

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 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)

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: ELISA)

Abrams JS, Silver J, Van Dyke R, Gleich G. Eosinophil-active cytokines in human disease: development and use of monoclonal antibodies to IL-3, IL-5, GMCSF. In: Kay A and Gleich G, ed. *Eosinophils in Allergy and Inflammation*. 1994:133-157.(Clone-specific: ELISA)

Kaushansky K, Shoemaker SG, Broudy VC. Structure-function relationships of interleukin-3. An analysis based on the function and binding characteristics of a series of interspecies chimera of gibbon and murine interleukin-3. *J Clin Invest*. 1992; 90(5):1879-1888.(Clone-specific)

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