Technical Data Sheet

# Biotin Rat Anti-Mouse IL-2

## Product Information

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|---|---|
| **Material Number:** | **554426** |
| **Size:** | 0.5 mg |
| **Concentration:** | 0.5 mg/ml |
| **Clone:** | JES6-5H4 |
| **Immunogen:** | Recombinant mouse IL-2 |
| **Isotype:** | Rat IgG2b |
| **Reactivity:** | QC Testing: Mouse |
| **Storage Buffer:** | Aqueous buffered solution containing ≤0.09% sodium azide. |

## Description

The JES6-5H4 antibody reacts with mouse interleukin-2 (IL-2). The immunogen used to generate the JES6-5H4 hybridoma was recombinant mouse IL-2. This is a neutralizing antibody.

This antibody is routinely tested by ELISA Detection. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

## 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 and protected from prolonged exposure to light. Do not freeze.

## Application Notes

| Application | |
|---|---|
| ELISA Detection | Routinely Tested |

**Recommended Assay Procedure:**
**ELISA Detection:** The biotinylated JES6-5H4 antibody (Cat. No. 554426) is useful as a detection antibody for a sandwich ELISA for measuring mouse IL-2 protein levels in tissue culture supernatants. Biotinylated JES6-5H4 antibody can be paired with the purified JES6-1A12 antibody (Cat. No. 554424) as the capture antibody, with recombinant mouse IL-2 (Cat. No. 550069) as the standard. The biotinylated JES6-5H4 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 mouse IL-2 protein ranging from ~500 to 4 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology, please visit our protocols or the chapter on ELISA in the Immune Function Handbook, both of which can be found at our web site, www.bdbiosciences.com.

***Note:*** This ELISA pair is recommended primarily for measuring cytokine from experimental cell culture systems. These ELISA reagents are not recommended for assaying serum or plasma samples. For measuring mouse IL-2 in serum or plasma our BD OptEIA™ Mouse IL-2 ELISA Set (Cat. No. 555148) is specially formulated and recommended.

***Note:*** This ELISA pair shows no cross-reactivity with any of the cytokines tested. Mouse: IL-1β, 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, 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-13, IL-15, GM-CSF, IFN-γ, TNF, LT-α, MCP-1, MCP-2, MIP-1α, MIP-1β, SCF, Lymphotactin, VEGF, G-CSF, NT-3, PDGF-AA, CD23, TCA-3 Rat: IL-2, IL-4, IL-6, IL-10, TNF-α, GM-CSF, IFN-γ.

**Immunofluorescent Staining and Flow Cytometric Analysis**: The JES6-5H4 antibody is useful for immunofluorescent staining and flow cytometric analysis to identify and enumerate IL-2 producing cells within mixed cell populations. FITC, PE and APC- conjugated JES6-5H4 antibodies are available and are recommended for these studies.

**IP**: The purified JES6-5H4 antibody has been reported to be useful for immunoprecipitation studies. Please note that this application is not routinely tested at BD Biosciences Pharmingen.

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## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 555148 | Mouse IL-2 ELISA Set | 20 tests | (none) |
| 550069 | Recombinant mouse IL-2 | 20 µg | (none) |
| 554424 | Purified Rat Anti-Mouse IL-2 | 0.5 mg | JES6-1A12 |

## 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.
4. Use of these products to measure activation antigens expressed on mononuclear cell subsets for the purpose of monitoring immunoregulatory status can fall under one or more claims of the following patents: US Patent Nos. 5,445,939, 5,656,446, 5,843,689; European Patent No. 319,543; Canadian Patent No. 1,296,622; Australian Patent No. 615,880; and Japanese Patent No. 2,769,156.

## 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, Immunoprecipitation)

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.(Clone-specific: ELISA)