Technical Data Sheet

# Biotin Rat Anti-Mouse CD24

## Product Information

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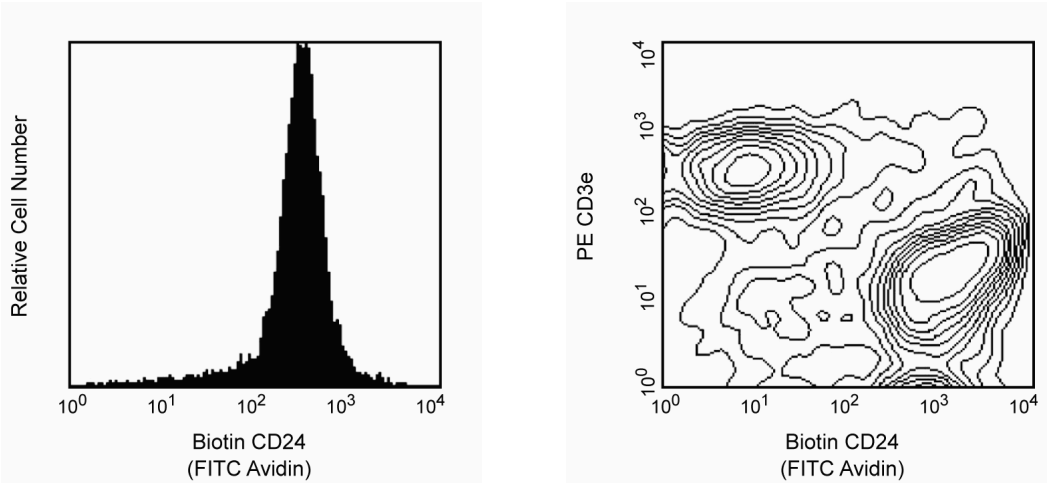
| **Material Number:** | **553260** |
| **Alternate Name:** | Heat Stable Antigen |
| **Size:** | 0.5 mg |
| **Concentration:** | 0.5 mg/ml |
| **Clone:** | M1/69 |
| **Immunogen:** | C57BL/10 Mouse Splenic T Lymphocytes |
| **Isotype:** | Rat (DA) IgG2b, κ |
| **Reactivity:** | QC Testing: Mouse |
| **Storage Buffer:** | Aqueous buffered solution containing ≤0.09% sodium azide. |

## Description

The M1/69 antibody reacts with CD24 (Heat-Stable Antigen, HSA or HsAg), a variably glycosylated GPI-anchored membrane protein found on erythrocytes, granulocytes, monocytes, lymphocytes, and neurons. Hematopoietic stem cells of the embryonic yolk sac and fetal liver express CD24.5 Levels of expression of CD24 vary during differentiation of the T and B cell lineages. In the bone marrow, hematopoietic progenitors acquire CD24 expression upon commitment to the B-lymphocyte lineage. Immature B cells in the bone marrow and spleen of adult mice peripheral B lymphocytes express intermediate levels of CD24. The level of CD24 expression has been reported to rise upon activation of splenic B cells with LPS, but not with CD154 (CD40 Ligand). The majority of thymocytes express high levels of CD24, while most mature thymic and peripheral T lymphocytes do not express CD24. In contrast, TCR-bearing thymocytes which emigrate to the spleen are CD24+. Dendritic cells of the thymus, spleen, liver, and epidermal Langerhans cells have also been reported to express CD24. CD24 is not expressed by NK cells, as determined by staining with J11d mAb (Cat. No. 553146). CD24 is involved in the costimulation of CD4+ T cells by B cells, it is a "co-inducer" of in vitro thymocyte maturation, and it is a ligand of CD62P (P-selectin). While the monoclonal antibodies 30-F1, M1/69, and J11d all react with CD24, they show subtle differences in the level of staining of different lymphocyte populations. When possible, investigators should continue to use the same monoclonal antibody as used in previous studies.

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




***Differential expression of CD24 on thymocytes and peripheral T lymphocytes.*** *C57BL/6 thymocytes were stained with biotin-conjugated mAb M1/69 followed by Avidin-FITC (Cat. No. 554057, left panel). C57BL/6 splenocytes were simultaneously stained with biotin-conjugated mAb M1/69 and PE-conjugated anti-mouse CD3e mAb 145-2C11 (Cat. No. 553063/553064) followed by Avidin-FITC (right panel). Flow cytometry was performed on a BD FACScan™ flow cytometry system.*

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## 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**

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| Flow cytometry | Routinely Tested |

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 553146 | Purified Rat Anti-Mouse CD24 | 0.5 mg | J11d |
| 554057 | Avidin FITC | 0.5 mg | (none) |
| 553063 | PE Hamster Anti-Mouse CD3e | 0.1 mg | 145-2C11 |
| 553987 | Biotin Rat IgG2b, κ Isotype Control | 0.25 mg | A95-1 |

## 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


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