

Technical Data Sheet

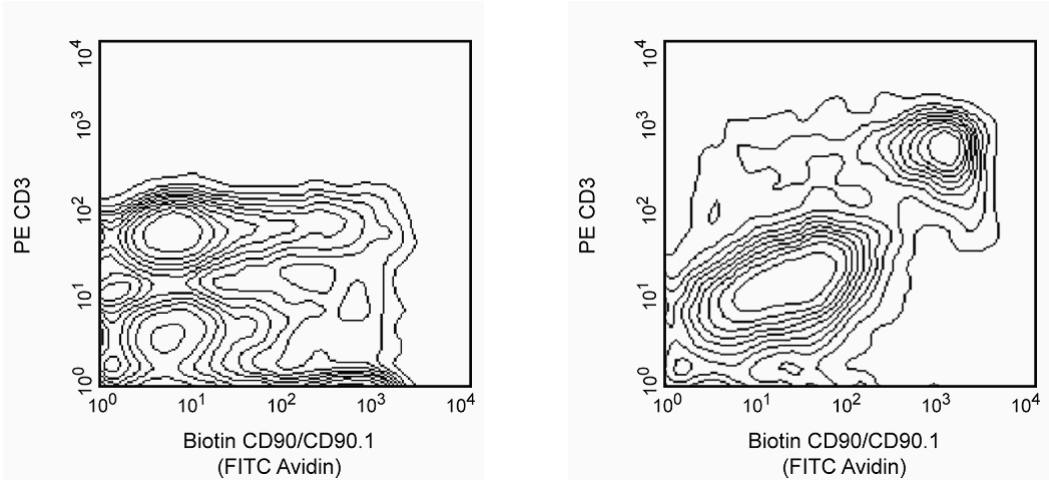
**Biotin Mouse Anti-Rat CD90/Mouse CD90.1**

**Product Information**

Material Number:	554893
Alternate Name:	Thy-1/Thy-1.1
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	HIS51
Immunogen:	Rat bone marrow cells
Isotype:	Mouse (BALB/c) IgG2a, κ
Reactivity:	QC Testing: Rat Tested in Development: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

**Description**

The HIS51 antibody reacts with the rat Thy-1 antigen (CD90) expressed by hematopoietic stem cells, early myeloid and erythroid cells, immature B lymphocytes in the bone marrow and peripheral lymphoid organs, thymocytes, recent thymic emigrants (a subset of CD45RC-peripheral T cells), neurons, glomerular mesangial cells, endothelium at inflammatory sites, mast cells, and bone marrow-derived dendritic cells. Rat dendritic epidermal T cells (DEC) are Thy-1-negative. CD90 is a GPI-anchored membrane glycoprotein of the Ig superfamily which is involved in signal transduction. In addition, there is evidence in the mouse that CD90 mediates adhesion of thymocytes to thymic stroma. HIS51 antibody cross-reacts with the mouse Thy-1.1 alloantigen of the AKR/J and PL strains, but not Thy-1.2 found on most strains. In the mouse, CD90 is found on thymocytes, most peripheral T lymphocytes, some intraepithelial T lymphocytes (IEL, DEC), hematopoietic stem cells, and neurons, but not B lymphocytes.



**Comparison of the expression of CD90/CD90.1 by rat and mouse peripheral lymphocytes.** Lewis rat splenocytes were simultaneously stained with PE-conjugated anti-rat CD3 G4.18 (Cat. No. 554833) and biotin-conjugated HIS51 monoclonal antibodies (left panel). P/J mouse splenocytes were simultaneously stained with PE-conjugated anti-mouse CD3e 145-2C11 (Cat. No. 553063/553064) and biotin-conjugated HIS51 monoclonal antibodies (right panel). The second-step reagent was Avidin-FITC (Cat. No. 554057, both panels). Flow cytometry was performed on a BD FACScan™ flow cytometry system.

**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**

Flow cytometry	Routinely Tested
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## Suggested Companion Products

Catalog Number	Name	Size	Clone
554833	PE Mouse Anti-Rat CD3	0.2 mg	G4.18
553063	PE Hamster Anti-Mouse CD3e	0.1 mg	145-2C11
554057	Avidin FITC	0.5 mg	(none)

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/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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