

Technical Data Sheet

Biotin Rat Anti-Mouse Vβ 14 T-Cell Receptor

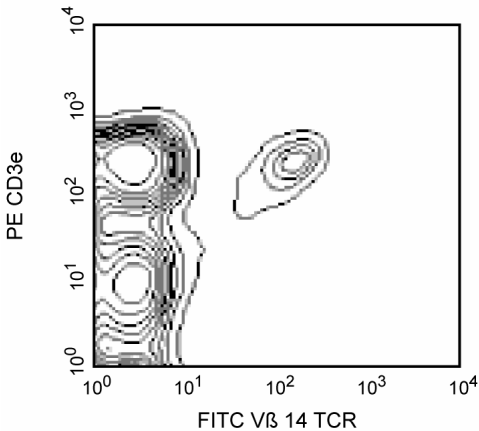
Product Information

Material Number:	553257
Size:	0.25 mg
Concentration:	0.5 mg/ml
Clone:	14-2
Immunogen:	Mouse B10.A Helper T-Cell Clone J9.19
Isotype:	Rat (F344) IgM, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 14-2 antibody reacts with the Vβ 14 T-Cell Receptor (TCR) of mice having the a (e.g., C57BR, C57L, SJL, SWR), b (e.g., A, AKR, BALB/c, CBA, C3H/He, C57BL, C58, DBA/1, DBA/2), and c (e.g., RIII) haplotypes of the Tcrb gene complex. Vβ 14 TCR-expressing T lymphocytes are completely eliminated in mice expressing I-E and the superantigens encoded by Mtv-2 endogenous provirus and/or MMTV-C3H, MMTV-GR, or MMTV-D2.GD exogenous virus. Recognition of these determinants by Vβ 14 TCR-expressing T cells is dependent upon presentation by I-E. Plate bound 14-2 antibody activates Vβ 14 TCR-bearing T cells.

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.



Two-color analysis of the expression of Vβ 14 TCR on peripheral T lymphocytes. C57BL/6 lymph node cells were incubated simultaneously with biotinylated 14-2 and PE-conjugated 145-2C11 (anti-CD3e, Cat. No. 553063/553064) monoclonal antibodies, followed by Avidin-FITC (Cat. No. 554057). Flow cytometry was performed on a FACScan™ (BDIS, San Jose, CA).

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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Recommended Assay Procedure:

For flow cytometry of cell suspensions from peripheral lymphoid tissue, it is recommended that multicolor staining be performed to distinguish T lymphocytes from non-T cells.

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Suggested Companion Products

Catalog Number	Name	Size	Clone
553063	PE Hamster Anti-Mouse CD3e	0.1 mg	145-2C11
554057	Avidin FITC	0.5 mg	(none)
553941	Biotin Rat IgM, κ Isotype Control	0.25 mg	R4-22

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 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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