PE Mouse Anti-Rat αβ T-Cell Receptor

Product Information
Material Number: 554914
Alternate Name: TCR α/β; TCR αβ; αβ TCR; alpha beta TCR
Size: 0.2 mg
Concentration: 0.2 mg/ml
Clone: R73
Immunogen: Rat T blasts and rat erythrocytes
Isotype: Mouse (BALB/c) IgG1, κ
Reactivity: QC Testing: Rat
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description
The R73 monoclonal antibody specifically recognizes the αβ T-cell Receptor (TCR) found on most peripheral T lymphocytes, intestinal intraepithelial lymphocytes, and thymocytes. It does not react with γδ TCR-bearing cells. Cross-linked R73 mAb induces T-cell activation and differentiation. In vivo treatment with mAb R73 can suppress immune function of peripheral αβ TCR-expressing T cells, and reduce the severity of experimental autoimmune, transplant rejection, and graft-versus-host responses.

Flow cytometric analysis of αβ TCR expression in rat spleen and thymus. Lewis splenocytes were simultaneously stained with FITC Mouse Anti-Rat CD3 (Cat. No. 559975/554832, left panels) and PE Mouse Anti-Rat αβ T-Cell Receptor (Cat. No. 554914; bottom left panel). Lewis thymocytes were stained with PE Mouse Anti-Rat αβ T-Cell Receptor (bottom right panel) or unstained (top right panel). Fluorescent histograms and two-color contour plots were derived from gated events with the side and forward light-scattering characteristics of viable cells. Flow cytometry was performed on a BD FACScan™ flow cytometry system.

Preparation and Storage
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes
Application
Flow cytometry Routinely Tested

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Suggested Companion Products

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References


Heidecke CD, Hancock WW, Jakobs F, et al. alpha/beta-T cell receptor-directed therapy in rat cardiac allotransplant recipients. Treatment prior to allotransplantation prevents sensitization and abrogates accelerated rejection. Transplantation. 1995; 59(1):78-84. (Biology)


