Technical Data Sheet

# PerCP Mouse Anti-Rat αβ T-Cell Receptor

## Product Information

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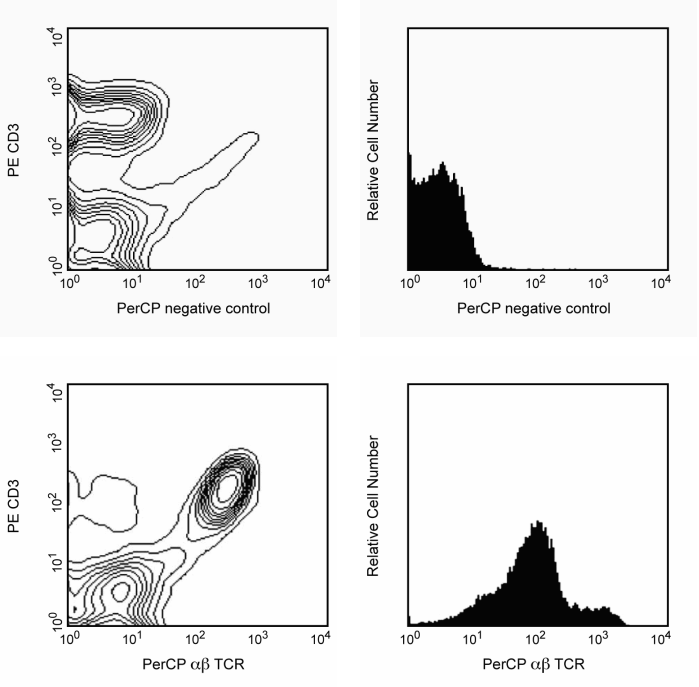
| **Material Number:** | **557019** |
| **Size:** | 0.1 mg |
| **Concentration:** | 0.2 mg/ml |
| **Clone:** | R73 |
| **Immunogen:** | Rat T blasts and rat erythrocytes |
| **Isotype:** | Mouse (BALB/c) IgG1, κ |
| **Reactivity:** | QC Testing: Rat |
| **Storage Buffer:** | Aqueous buffered solution containing ≤0.09% sodium azide. |

## Description

The R73 antibody reacts with 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 differentiation and activation. 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.




***αβ TCR expression in spleen and thymus.*** *Lewis splenocytes were simultaneously stained with PE-conjugated anti-rat CD3 G4.18 (Cat. No. 554833, left panels) and PerCP-conjugated R73 (bottom left panel) monoclonal antibodies. Lewis thymocytes were stained with PerCP-conjugated mAb R73 (bottom right panel) or unstained (top right panel). 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 PerCP under optimum conditions, and unconjugated antibody and free PerCP were removed. Storage of PerCP conjugates in unoptimized diluent is not recommended and may result in loss of signal intensity.

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 |

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**Recommended Assay Procedure:**

For tandem conjugates incorporating PerCP (e.g., PerCP-Cy5.5), the excitation and emission properties of PerCP and the kinetics of energy exchange between the fluorochromes of the tandem dye may limit their effectiveness on high-speed and/or sorting flow cytometers.

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 554833 | PE Mouse Anti-Rat CD3 | 0.2 mg | G4.18 |
| 550672 | PerCP Mouse IgG1 κ Isotype Control | 0.1 mg | MOPC-31C |

## 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. PerCP is a photosynthetic accessory pigment from Glenodinium species of dinoflagellates, which is excited by the 488-nm light of an Argon ion laser and fluoresces at 675 nm. Therefore, PerCP-labelled antibodies can be used with FITC- and R-PE–labelled reagents in most single-laser flow cytometers with no significant spectral overlap of PerCP fluorescence with that of FITC or R-PE. PerCP has been reported to undergo significant photobleaching, the magnitude of which increases as laser power is increased or beam focus is narrowed. For third-color flow¬cytometric analysis using ≥25-mW laser power, we recommend PE-Cy5-, PE-Cy7–, or PerCP-Cy5.5-conjugated reagents.
4. 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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