PerCP-Cy™5.5 Rat Anti-Mouse CD122

Product Information

Material Number: 564764
Alternate Name: II2rb; IL-2Rbeta; IL-2Rβ; IL-15Rbeta; IL-2/15 Receptor-beta; IL-2/15Rbeta
Size: 50 µg
Concentration: 0.2 mg/ml
Clone: TM-β1
Immunogen: Mouse IL-2Rβ Transfected Cell Line
Isotype: Rat (SD) IgG2b, κ
Reactivity: QC Testing: Mouse
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The TM-β1 monoclonal antibody specifically recognizes the 90-100-kDa β chain shared by the IL-2 and IL-15 receptors (IL-2Rβ, CD122). In the periphery, CD122 is expressed on CD8+ T lymphocytes, NK cells, NK-T cells, dendritic epidermal T cells, subsets of intraepithelial lymphocytes, and macrophages. Small subsets of fetal and adult thymocytes constitutively express CD122. CD122+ cells in the bone marrow include committed NK-cell progenitors. IL-2Rβ expression is upregulated by IL-2. CD122 is a transmembrane glycoprotein of the hematopoietin receptor superfamily which can combine with CD132 (γc) alone or CD132 plus CD25 (IL-2Rα) to form intermediate or high-affinity IL-2 receptor complexes, respectively. The β chain of these complexes, CD122, is involved in signal transduction and immunoregulation. The TM-β1 antibody blocks high affinity binding of IL-2 or IL-15 to IL-2Rβ.

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 PerCP-Cy5.5 under optimum conditions, and unconjugated antibody and free PerCP-Cy5.5 were removed. Storage of PerCP-Cy5.5 conjugates in unoptimized diluent is not recommended and may result in loss of signal intensity.

Application Notes

Application

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<th>Flow cytometry</th>
<th>Routinely Tested</th>
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Two-color flow cytometric analysis of CD122 expression on mouse splenocytes. Mouse splenic leukocytes were preincubated with Purified Rat Anti-Mouse CD16/CD32 antibody (Mouse BD Fc Block™) (Cat. No. 553141/553142). The cells were then stained with APC Rat Anti-Mouse CD49b antibody (Cat. No. 560628) and either Per-CP-Cy™5.5 Rat IgG2b, κ Isotype Control (Cat. No. 550764; Left Panel) or Per-CP-Cy™5.5 Rat Anti-Mouse CD122 antibody (Cat. No. 564764; Right Panel). The two-color flow cytometric contour plots showing the correlated expression patterns of CD122 (or Ig isotype control staining) versus CD49b were derived from the gated events with the forward and side light-scatter characteristics of viable splenic leukocytes. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer System.
**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. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
5. PerCP-Cy5.5–labelled antibodies can be used with FITC- and R-PE–labelled reagents in single-laser flow cytometers with no significant spectral overlap of PerCP-Cy5.5, FITC, and R-PE fluorescence.
6. PerCP-Cy5.5 is optimized for use with a single argon ion laser emitting 488-nm light. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using dual-laser cytometers, which may directly excite both PerCP and Cy5.5™. We recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
8. Cy is a trademark of GE Healthcare.

**References**


