Technical Data Sheet

PE-CF594 Rat Anti-Mouse CD122

Product Information

- **Material Number:** 564763
- **Alternate Name:** Il2rb; IL-2Rbeta; 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 BSA and ≤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.

This antibody is conjugated to BD Horizon PE-CF594, which has been developed exclusively by BD Biosciences as a better alternative to PE-CF594 excites and emits at similar wavelengths to PE-Texas Red® yet exhibits improved brightness and spectral characteristics. Due to PE having maximal absorption peaks at 496 nm and 564 nm, PE-CF594 can be excited by the blue (488-nm), green (532-nm) and yellow-green (561-nm) lasers and can be detected with the same filter set as PE-Texas Red® (eg, 610/20-nm filter).

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 BD Horizon™ PE-CF594 under optimum conditions, and unconjugated antibody and free PE-CF594 were removed.

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Suggested Companion Products

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<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
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<td>PE-CF/594 Rat IgG2b, κ Isotype Control</td>
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<td>Stain Buffer (BSA)</td>
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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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. When excited by the yellow-green (561-nm) laser, the fluorescence may be brighter than when excited by the blue (488-nm) laser.
6. 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 using vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
7. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using multi-laser cytometers, which may directly excite both PE and CF™594.
8. CF™ is a trademark of Biotium, Inc.
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10. Texas Red is a registered trademark of Molecular Probes, Inc., Eugene, OR.
11. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References

U S A.

Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.