

Technical Data Sheet

PE-CF594 Mouse Anti-Human IL-2

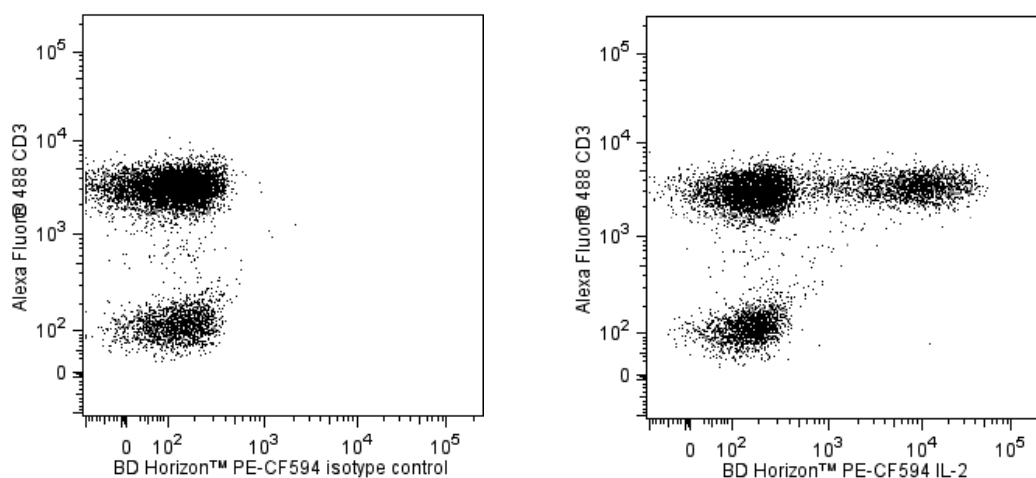
Product Information

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|-------------------------|---|
| Material Number: | 562384 |
| Alternate Name: | IL2; Interleukin-2; T-cell growth factor; TCGF |
| Size: | 50 tests |
| Vol. per Test: | 5 µl |
| Clone: | 5344.111 |
| Immunogen: | Human IL-2 protein |
| Isotype: | Mouse IgG1, κ |
| Reactivity: | QC Testing: Human |
| Storage Buffer: | Aqueous buffered solution containing BSA and ≤0.09% sodium azide. |

Description

The 5344.111 antibody specifically binds to the multifunctional cytokine, human interleukin-2 (IL-2). IL-2 is produced by activated T cells and has multiple functions that can affect the growth, proliferation and differentiation of many different target cell types including T cells, B cells, NK cells, monocytes and macrophages. The immunogen used to generate the 5344.111 hybridoma was affinity-purified, recombinant human IL-2 protein.

This antibody is conjugated to BD Horizon™ PE-CF594, which has been developed exclusively by BD Biosciences as a better alternative to PE-Texas Red®. 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).



Multicolor flow cytometric analysis of IL-2 expressed in stimulated human peripheral blood mononuclear cells. HiCK-1 Human Cytokine Positive Control Cells (Cat. No. 555061) were permeabilized with BD Perm/Wash™ Buffer (Cat. No. 554723). The cells were then stained with either BD Horizon™ PE-CF594 Mouse IgG1, κ Isotype Control (Cat No. 562292, Left Panel) or with BD Horizon™ PE-CF594 Mouse Anti-Human IL-2 antibody (Cat No. 562384, Right Panel) in conjunction with an Alexa Fluor® 488 Mouse Anti-Human CD3 antibody (Cat. No. 557694). Two-color flow cytometric dot plots were derived from gated events with the forward and side light-scatter characteristics of intact lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometer 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 BD Horizon™ PE-CF594 under optimum conditions, and unconjugated antibody and free PE-CF594 were removed.

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| 877.232.8995 | 800.979.9408 | 32.53.720.550 | 0120.8555.90 | 65.6861.0633 | 55.11.5185.9995 |

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Application Notes

Application

Intracellular staining (flow cytometry)

Routinely Tested

Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|----------------|--|-----------|--------|
| 554656 | Stain Buffer (FBS) | 500 ml | (none) |
| 562292 | PE-CF594 Mouse IgG1, κ Isotype Control | 0.1 mg | X40 |
| 554723 | Perm/Wash Buffer | 100 ml | (none) |
| 555061 | HiCK-1 Human Cytokine Positive Control Cells | 1.0 ml | (none) |
| 554714 | BD Cytotfix/Cytoperm™ Fixation/Permeablization Kit | 250 tests | (none) |
| 557694 | Alexa Fluor® 488 Mouse Anti-Human CD3 | 100 tests | UCHT1 |

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
5. 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.
6. 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.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
8. Texas Red is a registered trademark of Molecular Probes, Inc., Eugene, OR.
9. CF™ is a trademark of Biotium, Inc.
10. When excited by the yellow-green (561-nm) laser, the fluorescence may be brighter than when excited by the blue (488-nm) laser.
11. This product is provided under an Agreement between BIOTIUM and BD Biosciences. The manufacture, use, sale, offer for sale, or import of this product is subject to one or more patents or pending applications owned or licensed by Biotium, Inc. This product, and only in the amount purchased by buyer, may be used solely for buyer's own internal research, in a manner consistent with the accompanying product literature. No other right to use, sell or otherwise transfer (a) this product, or (b) its components is hereby granted expressly, by implication or by estoppel. This product is for research use only. Diagnostic uses require a separate license from Biotium, Inc. For information on purchasing a license to this product including for purposes other than research, contact Biotium, Inc., 3159 Corporate Place, Hayward, CA 94545, Tel: (510) 265-1027. Fax: (510) 265-1352. Email: btinfo@biotium.com.
12. 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.
13. This product is manufactured and sold under license from Pestka Biomedical Laboratories, Inc. (d/b/a PBL InterferonSource) and may be used solely as indicated. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics is strictly prohibited. This product is covered by U.S. Patent No. 5,597,901 and Bulgarian Patent No. BG1895.

References

- Liao W, Lin JX, Leonard WJ. IL-2 family cytokines: new insights into the complex roles of IL-2 as a broad regulator of T helper cell differentiation. *Curr Protoc Immunol.* 2011; 23(5):598-604. (Biology)
- Malek TR. The biology of interleukin-2. *Annu Rev Immunol.* 2008; 26:453-479. (Biology)
- Waldmann TA. The biology of interleukin-2 and interleukin-15: implications for cancer therapy and vaccine design. *Nat Rev Immunol.* 2006; 6(8):595-601. (Biology)

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