# Technical Data Sheet

# PerCP-Cy<sup>™</sup>5.5 Hamster IgG1, κ Isotype Control

#### **Product Information**

**Material Number:** 550763

Alternate Name: Anti-Trinitrophenol (TNP)

 $0.1 \, \text{mg}$ Size 0.2 mg/ml Concentration: A19-3 Clone:

Immunogen: TNP-keyhole limpet hemocyanin Isotype: Armenian Hamster IgG1, κ

Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

## Description

The A19-3 monoclonal antibody specifically binds to the hapten, trinitrophenol (TNP). TNP is not expressed on human, mouse, or rat cells. The immunoglobulin from clone A19-3 was selected as an isotype control following screening for low background staining on a variety of mouse and human tissues.

## Preparation and Storage

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. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

#### **Application Notes**

### Application

| Flow cytometry  | Routinely Tested |  |
|-----------------|------------------|--|
| Isotype control | Routinely Tested |  |

#### **Recommended Assay Procedure:**

An isotype control should be used at the same concentration as the antibody of interest.

PerCP has been reported to undergo significant photobleaching, the magnitude of which increases as laser power is increased or beam focus is narrowed. 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. Therefore, for third-color flow-cytometric analysis using  $\geq 25$ -mW laser power, we recommend BD Cy-Chrome<sup>TM</sup>-conjugated reagents (e.g., Cat. No. 553973). PerCP-Cy5.5 tandem fluorochrome emission is collected in the Fluorescence-3 (FL3) channel of BD FACScan™ and BD FACSCalibur<sup>TM</sup> Flow Cytometry Systems. It is recommended that a 712/720-nm band-pass filter be used with stream-in-air instruments such as the BD FACStar™ and BD FACSVantage™ Flow Cytometry Systems.

# **Product Notices**

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at
  - http://www.bdbiosciences.com/pharmingen/hamster chart 11x17.pdf.
- 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 Cy5.5TM. We recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
- 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.
- For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
- 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.
- Cy is a trademark of Amersham Biosciences Limited. This conjugated product is sold under license to the following patents: US Patent Nos. 5,486,616; 5,569,587; 5,569,766; 5,627,027.

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#### References

Greimers R, Trebak M, Moutschen M, Jacobs N, Boniver J. Improved four-color flow cytometry method using fluo-3 and triple immunofluorescence for analysis of intracellular calcium ion ([Ca2+]i) fluxes among mouse lymph node B- and T-lymphocyte subsets. *Cytometry*. 1996; 23(3):205-217. (Methodology) Shapiro HM. *Practical Flow Cytometry*, 3rd Edition. New York: Wiley-Liss, Inc; 1995:280-281. (Methodology)

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