

Technical Data Sheet

BUV805 Rat Anti-Mouse CD16/CD32

Product Information

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|--------------------|---|
| Material Number: | 741923 |
| Size: | 50 µg |
| Clone: | 2.4G2 |
| Alternative Name: | FcγRIII/FcγRII; FcγR3/FcγR2 |
| Reactivity: | Mouse (Tested in Development) |
| Isotype: | Rat SD, also known as Sprague-Dawley (outbred) IgG2b, κ |
| Immunogen: | Mouse BALB/c Macrophage J774 |
| Application: | Flow cytometry (Qualified) |
| Concentration: | 0.2 mg/ml |
| Storage Buffer: | Aqueous buffered solution containing ≤0.09% sodium azide. |
| Regulatory Status: | RUO |

Description

The 2.4G2 antibody specifically recognizes a common nonpolymorphic epitope on the extracellular domains of the mouse FcγIII (CD16) and FcγII (CD32) Receptors. It has also been reported to bind the FcγI receptor (CD64) via its Fc domain. 2.4G2 mAb blocks non-antigen-specific binding of immunoglobulins to the FcγIII and FcγII, and possibly FcγI, Receptors in vitro and in vivo. CD16 and/or CD32 are expressed on natural killer cells, monocytes, macrophages, dendritic cells (at low levels), Kupffer cells, granulocytes, mast cells, B lymphocytes, immature thymocytes, and some activated mature T lymphocytes.

The antibody was conjugated to BD Horizon™ BUV805 which is part of the BD Horizon Brilliant™ Ultraviolet family of dyes. This dye is a tandem fluorochrome of BD Horizon BUV395 with an Ex Max of 348 nm and an acceptor dye with an Em Max at 805 nm. BD Horizon Brilliant BUV805 can be excited by the ultraviolet laser (355 nm) and detected with a 820/60 filter and a 770LP.

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 BUV805 under optimal conditions that minimize unconjugated dye and antibody.

Recommended Assay Procedure

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes (including BD OptiBuild Brilliant reagents) are used in the same experiment. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The BD Horizon Brilliant Stain Buffer was designed to minimize these interactions. More information can be found in the Technical Data Sheet of the BD Horizon Brilliant Stain Buffer (Cat. No. 563794).

Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|----------------|--|-----------|--------|
| 612901 | BUV805 Rat IgG2b, κ Isotype Control | 50 µg | R35-38 |
| 554656 | Stain Buffer (FBS) | 500 mL | |
| 554657 | Stain Buffer (BSA) | 500 mL | |
| 563794 | Brilliant Stain Buffer | 100 Tests | |
| 555899 | Lysing Buffer | 100 mL | |
| 553141 | Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™) | 0.1 mg | 2.4G2 |

Product Notices

1. This antibody was developed for use in flow cytometry.

2. The production process underwent stringent testing and validation to assure that it generates a high-quality conjugate with consistent performance and specific binding activity. However, verification testing has not been performed on all conjugate lots.
3. Researchers should determine the optimal concentration of this reagent for their individual applications.
4. An isotype control should be used at the same concentration as the antibody of interest.
5. 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.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
8. BD Horizon Brilliant Stain Buffer is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,575,303; 8,354,239.
9. BD Horizon Brilliant Ultraviolet 805 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,575,303; 8,354,239.

References

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- Unkeless JC. Characterization of a monoclonal antibody directed against mouse macrophage and lymphocyte Fc receptors. *J Exp Med*. 1979; 150(3):580-596. (Immunogen: Flow cytometry).

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