Technical Data Sheet

BV605 Rat Anti-Mouse LY-6G

Product Information

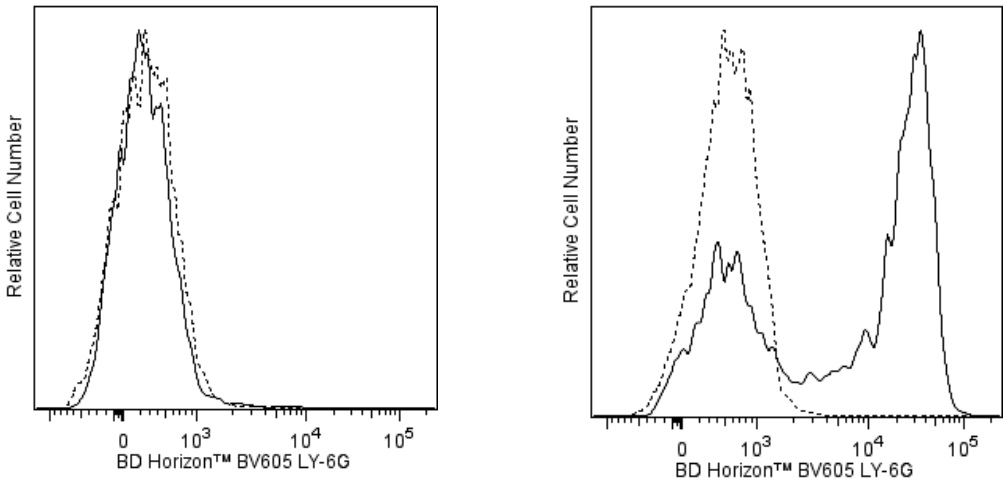
Material Number:	**563005**
Alternate Name:	Ly6g; Lymphocyte antigen 6G; Lymphocyte antigen 6 complex, locus G; Gr1
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	1A8
Immunogen:	Ly-6G-transfected EL4J cell line
Isotype:	Rat (LEW) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 1A8 monoclonal antibody specifically binds to Ly-6G, a 21-25-kDa glycosyolphosphatidylinositol-anchored protein. In the bone marrow, Ly-6G is expressed on the majority of the largest cells, which are predominantly granulocytes, and not on lymphoid or erythroid cells. In the periphery, it is expressed on granulocytes. The RB6-8C5 monoclonal antibody recognizes both Ly-6G and Ly-6C and blocks the binding of mAb 1A8 to Ly-6G.

This antibody is conjugated to BD Horizon BV605 which is part of the BD Horizon Brilliant™ Violet family of dyes. With an Ex Max of 407-nm and Em Max of 602-nm, BD Horizon BV605 can be excited by a violet laser and detected with a standard 610/20-nm filter set. BD Horizon BV605 is a tandem fluorochrome of BD Horizon BV421 and an acceptor dye with an Em max at 605-nm. Due to the excitation of the acceptor dye by the green (532 nm) and yellow-green (561 nm) lasers, there will be significant spillover into the PE and BD Horizon PE-CF594 detectors off the green or yellow-green lasers. BD Horizon BV605 conjugates are very bright, often exhibiting brightness equivalent to PE conjugates and can be used as a third color off of the violet laser.

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes 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).



Multiparameter flow cytometric analysis of Ly-6G expression on mouse bone-marrow leukocytes. *C57BL/6 mouse bone-marrow cells were stained with either BD Horizon™ BV605 Rat Anti-Mouse LY-6G antibody (Cat. No. 563005; solid line histogram) or BD Horizon™ BV605 Rat IgG2a, κ Isotype Control (Cat. No. 563144; dashed line histogram). Flow cytometric histograms were derived from gated events with the light scattering characteristics of viable lymphoid (Left Panel) or myeloid (Right Panel) cells. Flow cytometric analysis was performed using a BD LSRFortessa™ Cell Analyzer System.*

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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™ BV605 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV605 were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 mL	(none)
563144	BV605 Rat IgG2a, κ Isotype Control	50 µg	R35-95
563794	Brilliant Stain Buffer	5 mL	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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. Although every effort is made to minimize the lot-to-lot variation in the efficiency of the fluorochrome energy transfer, differences in the residual emission from BD Horizon™ BV421 may be observed. Therefore, we recommend that individual compensation controls be performed for every BD Horizon™ BV605 conjugate.
9. CF™ is a trademark of Biotium, Inc.

References

Fleming TJ, Fleming ML, Malek TR. Selective expression of Ly-6G on myeloid lineage cells in mouse bone marrow. RB6-8C5 mAb to granulocyte-differentiation antigen (Gr-1) detects members of the Ly-6 family. *J Immunol.* 1993; 151(5):2399-2408. (Immunogen: Flow cytometry, Immunoprecipitation)

Fleming TJ, Malek TR. Multiple glycosylphosphatidylinositol-anchored Ly-6 molecules and transmembrane Ly-6E mediate inhibition of IL-2 production. *J Immunol.* 1994; 153(5):1955-1962. (Clone-specific: Flow cytometry, Functional assay, Inhibition)

Fleming TJ, O'HUigin C, Malek TR. Characterization of two novel Ly-6 genes. Protein sequence and potential structural similarity to alpha-bungarotoxin and other neurotoxins. *J Immunol.* 1993; 150(12):5379-5390. (Biology)

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