Technical Data Sheet

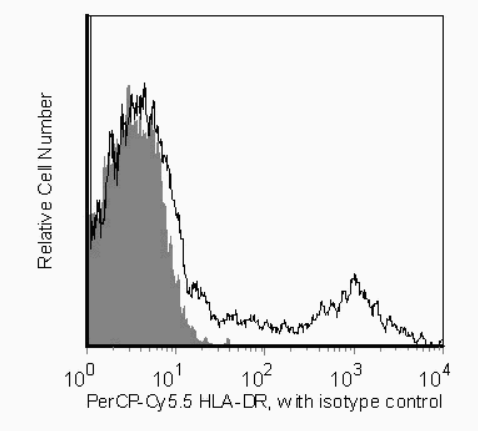
PerCP-Cy™5.5 Mouse Anti-Human HLA-DR

Product Information

Material Number:	**560652**
Alternate Name:	MHC class II antigen; HLA class II histocompatibility antigen
Size:	50 Tests
Vol. per Test:	5 µl
Clone:	G46-6
Isotype:	Mouse IgG2a, κ
Reactivity:	QC Testing: Human Tested in Development: Rhesus, Cynomolgus, Baboon Confirmed in Development: Dog
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The G46-6 monoclonal antibody specifically binds to HLA-DR, a major histocompatibility complex (MHC) class II antigen. HLA-DR antigens are encoded by genes within the Human Leukocyte Antigen (HLA) Complex located on chromosome 6. HLA-DR is a transmembrane heterodimeric glycoprotein composed of an α chain (36 kDa) and a β subunit (27 kDa) expressed primarily on antigen presenting cells: B cells, dendritic cells, monocytes, macrophages, and thymic epithelial cells. HLA-DR is also expressed on activated T cells. This molecule plays a major role in mediating cellular interactions during antigen presentation to CD4-positive T cells.



Flow cytometric analysis of HLA-DR on human lysed whole blood. *Human whole blood was lysed with BD FACS™ Lysing Solution (Cat. No. 349202) and stained with the PerCP-Cy™5.5 Mouse Anti-Human HLA-DR antibody (Cat. No. 560652/552764; unshaded histogram) or with a PerCP-Cy™5.5 Mouse IgG2a, κ isotype control (Cat. No. 550927; shaded histogram). Fluorescent histograms showing expression of HLA-DR (or Ig isotype staining) were derived from gated events based on forward and side light scattering characteristics for intact lymphocytes. Flow cytometry was performed on a BD™ LSR II flow cytometry 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 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.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
550927	PerCP-Cy™5.5 Mouse IgG2a, κ Isotype Control	0.1 mg	G155-178
555899	Lysing Buffer	100 mL	(none)
349202	BD FACS™ Lysing Solution	100 mL	(none)
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
552764	PerCP-Cy™5.5 Mouse Anti-Human HLA-DR	50 Tests	G46-6

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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-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.
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. 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 Cy5.5™. We recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
7. 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.
8. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
9. Cy is a trademark of GE Healthcare.
10. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
11. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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