Technical Data Sheet

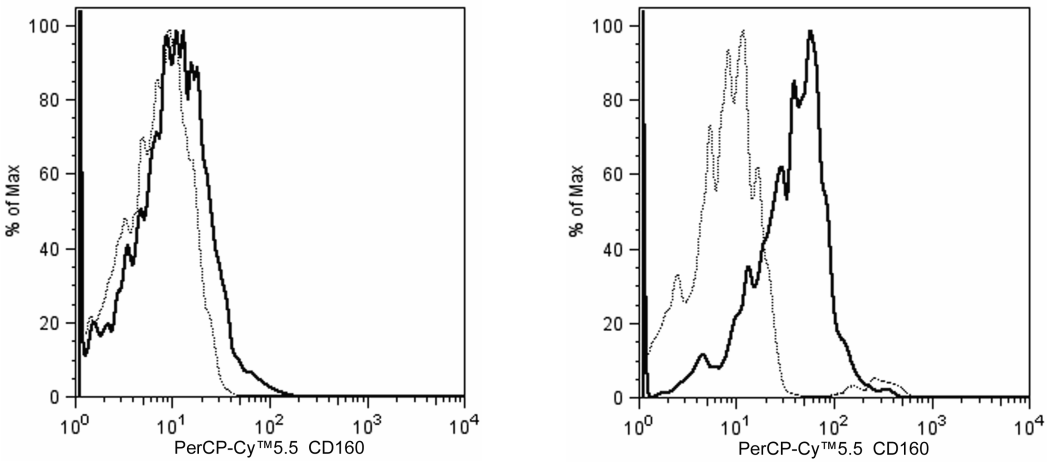
PerCP-Cy™5.5 Rat anti-Mouse CD160

Product Information

Material Number:	**562218**
Alternate Name:	Cd160; By55; Natural killer cell receptor BY55
Size:	0.1 mg
Concentration:	0.2 mg/ml
Clone:	CNX46-3
Immunogen:	Mouse CD160 Recombinant Protein
Isotype:	Rat (F344) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The CNX46-3 monoclonal antibody specifically binds to mouse CD160, also known as Natural Killer Cell Receptor BY55. CD160 is a glycosyolphosphatidylinositol-anchored membrane glycoprotein that contains a single Ig domain. This member of the Ig Superfamily was the first identified as a MHC Class I antigen-specific Ig-like Receptor that was expressed by mouse NK cells. As a receptor, CD160 can bind to classical and non-classical MHC class I molecules with low affinity. As a ligand, CD160 can bind to HVEM (Herpes Virus Entry Mediator, a TNF Receptor Family Member). CD160 is expressed on a subset of NK cells, NKT cells, activated CD8+ T cells and TCR γδ T cells. The functions of CD160 have been reported to regulate NK cell activation both positively and negatively, depending on the stimulus.



Multicolor flow cytometric analysis of CD160 expression on mouse spleen cells. *Spleen cells from a C57BL/6 mouse were stained with FITC Hamster Anti-Mouse CD3e (Cat. No. 553062) and APC Mouse Anti-Mouse NK1.1 (Cat. No. 550627) antibodies and either PerCP-Cy™5.5 Rat IgG2a, κ Isotype Control (Cat. No. 550765; dotted line histogram) or PerCP-Cy™5.5 Rat Anti-Mouse CD160 (Cat. No. 562218; solid line histogram). Flow cytometric fluorescence histograms showing the expression of CD160 (or Ig Isotype Control background staining) by CD3-NK1.1+ NK cells (Left Panel) or CD3+NK1.1+ T cells (Right Panel) were generated for gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD™ LSR II 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 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

BD Biosciences

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Suggested Companion Products

Catalog Number	Name	Size	Clone
550765	PerCP-Cy™5.5 Rat IgG2a, κ Isotype Control	0.1 mg	R35-95
554656	Stain Buffer (FBS)	500 ml	(none)
553062	FITC Hamster Anti-Mouse CD3e	0.5 mg	145-2C11
550627	APC Mouse Anti-Mouse NK-1.1	0.1 mg	PK136

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. 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.
4. 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.
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. 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.
7. 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.
8. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
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10. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Anumanthan A, Bensussan A, Boumsell L, et al. Cloning of BY55, a novel Ig superfamily member expressed on NK cells, CTL, and intestinal intraepithelial lymphocytes. *J Immunol.* 1998; 161(6):2780-2790. (Biology)

Maeda M, Carpenito C, Russell RC, Dasanjh J, Veinotte LL, Ohta H, Yamamura T, Tan R, Takei F.. Murine CD160, Ig-like receptor on NK cells and NKT cells, recognizes classical and nonclassical MHC class I and regulates NK cell activation. *J Immunol.* 2005; 175(7):4426-4432. (Immunogen: Flow cytometry, Immunoprecipitation, Western blot)