

Technical Data Sheet

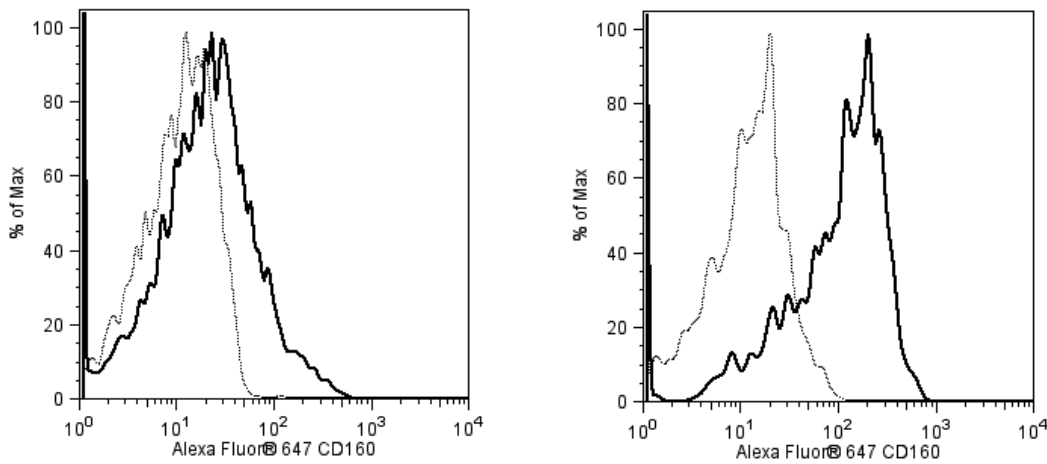
Alexa Fluor® 647 Rat anti-Mouse CD160

Product Information

Material Number:	562217
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 glycosylphosphatidylinositol-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 PE Mouse Anti-Mouse NK1.1 (Cat. No. 553165) antibodies and either Alexa Fluor® 647 Rat IgG2a, κ Isotype Control (Cat. No. 557690; dotted line histogram) or Alexa Fluor® 647 Rat Anti-Mouse CD160 antibody (Cat. No. 562217; 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 to Alexa Fluor® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
557690	Alexa Fluor® 647 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
553165	PE Mouse Anti-Mouse NK-1.1	0.2 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. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
5. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
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. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
8. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.

References

Anumanthan A, Bensussan A, Bousmell 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: Flow cytometry, Immunoprecipitation, Western blot)

Maeda M, Carpenito C, Russell RC, Dasanji 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)