

Biotin anti-mouse CD49b (pan-NK cells)

Catalog # / Size: 1144515 / 50 µg
1144520 / 500 µg

Clone: DX5

Isotype: Rat IgM, κ

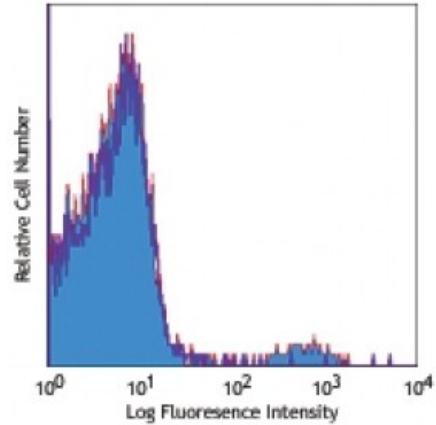
Immunogen: IL-2-propagated NK1.1+ cells from C57BL/6 mice

Reactivity: Mouse

Preparation: The antibody was conjugated with biotin under optimal conditions, and is at >85% purity. The solution is free of unconjugated biotin.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5



C57BL/6 mouse splenocytes stained with biotinylated DX5, followed by Sav-PE

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 microg per 10⁶ cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: The DX5 clone detects cells expressing relatively high levels of CD49b and may not be useful for the detection of cells expressing low levels of CD49b. DX5 does not block NK cell killing or binding to collagen *in vitro*. Additional reported applications (for the relevant formats) include: complement-mediated cytotoxicity² and immunohistochemical staining⁵ of formalin-fixed and paraffin-embedded tissue sections as well as immunohistochemical staining of acetone-fixed frozen sections¹⁰. The binding of DX5 antibody to splenic NK cells can be blocked by HMA2 antibody.

Application References:

1. Arase H, *et al.* 2001. *J. Immunol.* 167:1141. (FC)
2. Sepulveda H, *et al.* 1999. *J. Immunol.* 163:1133.
3. Norian LA and Allen PM. 2004. *J. Immunol.* 173:835. (FC)
4. Andoniou CE, *et al.* 2005. *Nature Immunology* 6:1011.
5. Oertelt S, *et al.* 2006. *J. Immunol.* 177:1655. (IHC) [PubMed](#)
6. Bourdeau A, *et al.* 2007. *Blood* doi:10.1182/blood-2006-08-044370.
7. Charles N, *et al.* 2010. *Nat. Med.* 16:701. (FC) [PubMed](#)
8. Qui Q, *et al.* 2010. *J. Immunol.* 184:1681. (FC) [PubMed](#)
9. Busche A, *et al.* 2011. *J. Immunol.* 186:2918. [PubMed](#)
10. Kim HR, *et al.* 2011. *Nephrology* 16:545. (IHC) [PubMed](#)
11. Seyoum B, *et al.* 2011. *Vaccine.* 29:8002. [PubMed](#)
12. Younos IH, *et al.* 2012. *Int Immunopharmacol.* 13:245. [PubMed](#)
13. Honjo K, *et al.* 2012. *PNAS.* [PubMed](#)
14. Pisano F, *et al.* 2014. *PLoS One.* 9:103541. [PubMed](#)

Description: DX5 antigen has been recently characterized as CD49b. It is a 150 kD integrin α chain also known as α₂ integrin, VLA-2 α chain, and integrin α₂ chain. CD49b non-

covalently associates with CD29 (β_1 integrin) to form the CD49b/CD29 complex known as VLA-2, a receptor for collagen and laminin. CD49b is expressed on platelets, the majority of NK cells, NKT cells, and a small subset of CD8+ T cells (this population can be significantly increased following viral infection). DX5 is used for the identification and isolation of NK cells, and is especially useful for identifying NK cells in mice lacking the NK1.1 antigen.

Antigen
References:

1. Arase H, *et al.* 2001. *J. Immunol.* 167:1141.
2. Barclay AN, *et al.* 1997. *The Leukocyte Antigen FactsBook* Academic Press.
3. Sasaki K, *et al.* 2003. *Int. Immunol.* 15:701.
4. Inoue O, *et*