



CELL LAB Rat Anti-Mouse CD49b/Pan NK Cell

<u>Cat. No.</u>	<u>Form</u>	<u>Quantity</u>
732289	Purified (UNLB) Antibody	0.5 mg
732290	Fluorescein (FITC) Conjugate	0.5 mg
732291	Biotin (BIOT) Conjugate	0.5 mg
732292	Phycoerythrin (PE) Conjugate	0.1 mg
734187	Phycoerythrin (PE) Conjugate	0.2 mg
732293	Allophycocyanin (APC) Conjugate	0.1 mg

For Laboratory Use Only

DESCRIPTION

Clone:	DX5
Immunogen:	RIL-2-propagated NK1.1 ⁺ cells from C57BL/6 mice ¹
Fusion Partner:	Mouse SP2/0 myeloma cell line
Isotype:	Rat (Lewis) IgM κ
Specificity:	Mouse CD49b, Mr 160 kDa

Monoclonal antibody (MAb) DX5 reacts with CD49b, also known as very late antigen-2 (VLA-2) and $\alpha 2$ integrin.¹ The antibody stains the majority of NK cells and a small subpopulation of T cells in all mouse strains tested (for example, A/J, AKR, BALB/c, C3H/HeJ, C57BL/6, C57BL/10, C57BR, C58, CBA/Ca, CBA/J, DBA/1, DBA/2, SJL, and SWR).² Three-color flow cytometry analysis has revealed that most cells that express NK-1.1 (NKR-P1C) also express CD49b. However, small subsets of DX5⁺NK-1.1⁻ and DX5⁻NK-1.1⁺ cells can be found, especially among the CD3⁺ population of T lymphocytes. NK cells cultured in the presence of IL-2 progressively lose reactivity with DX5 as a consequence of cellular proliferation.¹ Therefore, MAb DX5 can be used to define functionally distinct subsets of murine NK cells. MAb DX5 has not been demonstrated to have activating or blocking activity.

APPLICATIONS

- Flow cytometry¹⁻²

NOTE: The DX5 antibody is not suitable for immunohistochemical staining of either frozen or paraffin sections.

CHARACTERIZATION

To ensure lot-to-lot consistency, each batch of product is tested to conform with characteristics of a standard reference reagent using flow cytometry.

WORKING DILUTIONS

Flow Cytometry:	FITC conjugate	$\leq 1 \mu\text{g}/10^6$ cells
	BIOT conjugate	$\leq 1 \mu\text{g}/10^6$ cells
	PE conjugate	$\leq 0.2 \mu\text{g}/10^6$ cells
	APC conjugate	$\leq 0.2 \mu\text{g}/10^6$ cells

Other Applications: Since applications vary, determine the optimum working dilution of the product that is appropriate for your specific needs.

HANDLING AND STORAGE

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of 100 mM borate buffered saline, pH 8.0. No preservatives or amine-containing buffer salts added.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃.
- The phycoerythrin (PE) conjugates are supplied as 0.1 mg in 1.0 mL or 0.2 mg in 2.0 mL of PBS/NaN₃ and a stabilizing agent.
- The allophycocyanin (APC) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent.
- Protect fluorochrome-conjugated forms from light. Do not freeze.
- Reagent is stable until the expiration date on the vial when stored at 2-8°C.

STATEMENT OF WARNINGS

1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use reagent beyond the expiration date on the vial label.
4. Minimize exposure of reagent to light during storage or incubation.
5. Avoid microbial contamination of reagent or erroneous results may occur.
6. Use Good Laboratory Practice (GLP) when handling this reagent.
7. Harmful if swallowed.
8. After contact with skin, wash immediately with plenty of water.
9. Contains sodium azide. Sodium azide under acidic conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, immediately wash excessively with water.

TRADEMARKS

The Beckman Coulter logo is a trademark of Beckman Coulter, Inc.

For additional information or if damaged product is received, contact your local Beckman Coulter Representative.

REFERENCES

1. Arase H, Saito T, Phillips JH and Lanier LL. 2001. Cutting edge: the mouse NK cell-associated antigen recognized by DX5 monoclonal antibody is CD49b (alpha 2 integrin, very late antigen-2). *J Immunol*, 167:1141-1144.
2. Moore TA, von Freeden-Jeffry U, Murray R and Zlotnik A. 1996. Inhibition of gamma delta T cell development and early thymocyte maturation in IL-7 ^{-/-} mice. *J Immunol*, 157:2366-2373.



Manufactured for:
Beckman Coulter, Inc.
4300 N. Harbor Blvd.
Fullerton, CA 92835
www.beckmancoulter.com

Printed in USA
Made in USA

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PN 733964-A