



1P-503-T025

Monoclonal Antibody to CD24 Phycoerythrin (PE) conjugated (25 tests)

Clone:	SN3
Isotype:	Mouse IgG1
Specificity:	<p>The antibody SN3 reacts with CD24, a 35-45 kDa heavily glycosylated cell surface antigen. CD24 is expressed by granulocytes, B lymphocytes and by some activated T cells and T cell malignancies. It is not expressed on human thymocytes.</p> <p>HLDA IV; WS Code B 136 HLDA V; WS Code B CD24.7</p>
Immunogen:	Glycoproteins purified from human NALM-1 cell line.
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent.
Storage / Stability:	<p>Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light.</p> <p>Do not use after expiration date stamped on vial label.</p> <p>Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.</p>
Usage:	<p>The reagent is designed for Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension.</p> <p>The content of a vial (0.5 ml) is sufficient for 25 tests.</p>
Expiration:	See vial label
Lot Number:	See vial label
Background:	<p>CD24, also known as heat-stable antigen (HSA) or nectadorin, is a small mucin-like GPI-anchored extracellular membrane glycoprotein expressed on several cell types, including B cells. When B cells are activated and induced to further maturation, however, CD24 begins to disappear. CD24 seems to act as a gate-keeper for lipid rafts, thereby regulating the activity of integrins and other proteins such as the chemokine receptor CXCR4; it is also a ligand for P-selectin. CD24 triggering induces apoptosis of B cell precursors but not in mature resting B cells, where it instead inhibits their ability to proliferate in response to activation. CD24 expression is associated with invasiveness and poorer prognosis of carcinomas and is a marker of exosomes secreted into urine and amniotic fluid.</p>

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****References:**

- *Suzuki T, Kiyokawa N, Taguchi T, Sekino T, Katagiri YU, Fujimoto J: CD24 induces apoptosis in human B cells via the glycolipid-enriched membrane domains/rafts-mediated signaling system. *J Immunol.* 2001 May 1;166(9):5567-77.
- *Schabath H, Runz S, Joumaa S, Altevogt P: CD24 affects CXCR4 function in pre-B lymphocytes and breast carcinoma cells. *J Cell Sci.* 2006 Jan 15;119(Pt 2):314-25.
- *Keller S, Rupp C, Stoeck A, Runz S, Fogel M, Lugert S, Hager HD, Abdel-Bakky MS, Gutwein P, Altevogt P: CD24 is a marker of exosomes secreted into urine and amniotic fluid. *Kidney Int.* 2007 Nov;72(9):1095-102.
- *Chou YY, Jeng YM, Lee TT, Hu FC, Kao HL, Lin WC, Lai PL, Hu RH, Yuan RH: Cytoplasmic CD24 expression is a novel prognostic factor in diffuse-type gastric adenocarcinoma. *Ann Surg Oncol.* 2007 Oct;14(10):2748-58.
- *Runz S, Mierke CT, Joumaa S, Behrens J, Fabry B, Altevogt P: CD24 induces localization of beta1 integrin to lipid raft domains. *Biochem Biophys Res Commun.* 2008 Jan 4;365(1):35-41.
- *Barcos M, Pollard C, Fukukawa T, Seon BK.: Follicular mantle zone cell subpopulations detected by monoclonal antibody SN3. *Hematol Oncol.* 1986 Oct-Dec;4(4):251-9.
- *Fukukawa T, Matsuzaki H, Haruta Y, Hara H, Seon BK.: New monoclonal antibodies SN3, SN3a, and SN3b directed to sialic acid of glycoprotein on human non-T leukemia cells. *Exp Hematol.* 1986 Oct;14(9):850-5.
- *Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).
- *Fischer GF, Majdic O, Gadd S, Knapp W. Signal transduction in lymphocytic and myeloid cells via CD24, a new member of phosphoinositol-anchored membrane molecules. *J Immunol.* 1990 Jan 15;144(2):638-41.
- *Solvason N, Kearney JF. The human fetal omentum: a site of B cell generation. *J Exp Med.* 1992 Feb 1;175(2):397-404.
- *Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).

For laboratory research only, not for drug, diagnostic or other use.