

TECHNICAL DATA SHEET

CyFlow™ CD24 Purified Anti-Hu; Clone SN3

REF BH532849

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD24
Alternative Names	BA 1, HAS
Clone	SN3
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	Glycoproteins purified from human NALM-1 cell line

Specificity

The mouse monoclonal antibody SN3 recognizes CD24 antigen, 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.

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Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Immunohistochemistry (frozen sections)

Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH $\approx$ 7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

CD24 (HSA; heat-stable antigen 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.

References

- 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. < PMID: 3493967 >
- 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. < PMID: 3489635 >
- Knapp W, Dorken B, Gilks W, Rieber EP, Schmidt RE, Stein H, von dem Borne AEGK (Eds): *Leucocyte Typing IV*. Oxford University Press, Oxford. 1989; 1-1820. < NLM ID: 8914679 >

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- 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. < PMID: 2153173 >
- Solvason N, Kearney JF: The human fetal omentum: a site of B cell generation. J Exp Med. 1992 Feb 1; 175(2):397-404. < PMID: 1370683 >
- Doussis IA, Gatter KC, Mason DY: CD68 reactivity of non-macrophage derived tumours in cytological specimens. J Clin Pathol. 1993 Apr; 46(4):334-6. < PMID: 7684403 >
- 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. < PMID: 11313396 >
- 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(2):314-25. < PMID: 16390867 >
- 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 gastri adenocarcinoma. Ann Surg Oncol. 2007 Oct; 14(10):2748-58. < PMID: 17680316 >
- 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. < PMID: 17700640 >
- 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. < PMID: 17980703 >
- Maliar A, Servais C, Waks T, Chmielewski M, Lavy R, Altevogt P, Abken H, Eshhar Z: Redirected T cells that target pancreatic adenocarcinoma antigens eliminate tumors and metastases in mice. Gastroenterology. 2012 Nov; 143(5):1375-1384. < PMID: 22819865 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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