

Monoclonal Antibody to CD24 - PE

Alternate names:	HSA, Signal transducer CD24, Small cell lung carcinoma cluster 4 antigen, X62 heat stable antigen
Catalog No.:	AM03032RP-N
Quantity:	100 Tests
Background:	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.
Uniprot ID:	P25063
NCBI:	9606
Host / Isotype:	Mouse / IgG1
Clone:	SN3
Immunogen:	Glycoproteins purified from Human NALM-1 cell line.
Format:	State: Liquid purified Ig fraction Purification: Size-Exclusion Chromatography Buffer System: PBS Preservatives: 15 mM Sodium Azide Stabilizers: 0.2% (w/v) high-grade BSA (protease free) Label: PE – R-Phycoerythrin
Applications:	Suitable for Flow Cytometry analysis of Human blood cells using 20 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	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. Species: Human Other species not tested.

Storage:

Store the antibody in the dark at 2-8°C.

Do Not Freeze!

Avoid prolonged exposure to light.

Shelf life: One year from despatch.

General Readings:

1. 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. PubMed PMID: 11313396.
2. 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. Epub 2006 Jan 3. PubMed PMID: 16390867.
3. Keller S, Rupp C, Stoeck A, Runz S, Fogel M, Lugert S, et al. CD24 is a marker of exosomes secreted into urine and amniotic fluid. *Kidney Int.* 2007 Nov;72(9):1095-102. Epub 2007 Aug 15. PubMed PMID: 17700640.
4. Chou YY, Jeng YM, Lee TT, Hu FC, Kao HL, Lin WC, et al. Cytoplasmic CD24 expression is a novel prognostic factor in diffuse-type gastric adenocarcinoma. *Ann Surg Oncol.* 2007 Oct;14(10):2748-58. Epub 2007 Aug 7. PubMed PMID: 17680316.
5. 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. Epub 2007 Nov 1. PubMed PMID: 17980703.
6. 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. PubMed PMID: 3493967.
7. 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. PubMed PMID: 3489635.
8. Maliar A, Servais C, Waks T, Chmielewski M, Lavy R, Altevogt P, et al. Redirected T cells that target pancreatic adenocarcinoma antigens eliminate tumors and metastases in mice. *Gastroenterology.* 2012 Nov;143(5):1375-84.e1-5. doi: 10.1053/j.gastro.2012.07.017. Epub 2012 Jul 20. PubMed PMID: 22819865.
9. Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).
10. 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. PubMed PMID: 2153173.
11. Solvason N, Kearney JF. The human fetal omentum: a site of B cell generation. *J Exp Med.* 1992 Feb 1;175(2):397-404. PubMed PMID: 1370683.
12. Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).

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Material Safety Datasheets are available at www.acris-antibodies.com or on request.

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