

CD24 (SN3): sc-19585

BACKGROUND

CD24 is a GPI-linked membrane sialoglycoprotein that is expressed on pro-B, pre-B and mature B cells, and its expression is decreased after B cell activation. CD24 is also found on granulocytes and a small fraction of thymocytes and neuroblastomas, but not on plasma cells. CD24 may play a role in the regulation of B cell proliferation and differentiation. CD24 is expressed in hematological malignancies as well as in a large variety of solid tumors. A shift from apical localization to cytoplasmic staining of CD24 is a surrogate marker of stromal invasion in ovarian serous tumors of borderline malignancy. CD24 protein can be a B cell differentiation marker that is expressed on mature resting B cells and disappears upon stimulation.

CHROMOSOMAL LOCATION

Genetic locus: CD24 (human) mapping to 6p25.3; Cd24a (mouse) mapping to 10 B2.

SOURCE

CD24 (SN3) is a mouse monoclonal antibody raised against NALM-1 human pre-B leukemia cell line.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD24 (SN3) is available conjugated to agarose (sc-19585 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-19585 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-19585 PE), fluorescein (sc-19585 FITC), Alexa Fluor® 488 (sc-19585 AF488), Alexa Fluor® 546 (sc-19585 AF546), Alexa Fluor® 594 (sc-19585 AF594) or Alexa Fluor® 647 (sc-19585 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-19585 AF680) or Alexa Fluor® 790 (sc-19585 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CD24 (SN3) is recommended for detection of CD24 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for CD24 siRNA (h): sc-29978, CD24 siRNA (m): sc-29979, CD24 shRNA Plasmid (h): sc-29978-SH, CD24 shRNA Plasmid (m): sc-29979-SH, CD24 shRNA (h) Lentiviral Particles: sc-29978-V and CD24 shRNA (m) Lentiviral Particles: sc-29979-V.

Molecular Weight of CD24: 35-45 kDa.

Positive Controls: CD24 (h): 293T Lysate: sc-116926, HeLa whole cell lysate: sc-2200 or A549 cell lysate: sc-2413.

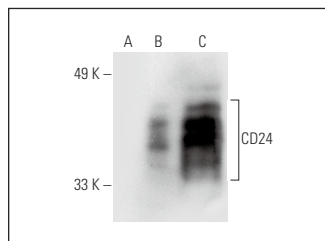
RESEARCH USE

For research use only, not for use in diagnostic procedures.

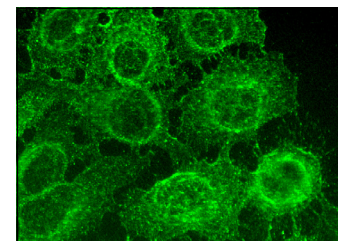
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



CD24 (SN3): sc-19585. Western blot analysis of CD24 expression in non-transfected 293T: sc-117752 (A), human CD24 transfected 293T: sc-116926 (B) and human PBL (C) whole cell lysates.



CD24 (SN3): sc-19585. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

- Sagrinati, C., et al. 2006. Isolation and characterization of multipotent progenitor cells from the Bowman's capsule of adult human kidneys. *J. Am. Soc. Nephrol.* 17: 2443-2456.
- Sagiv, E., et al. 2008. Targeting CD24 for treatment of colorectal and pancreatic cancer by monoclonal antibodies or small interfering RNA. *Cancer Res.* 68: 2803-2812.
- Ronconi, E., et al. 2009. Regeneration of glomerular podocytes by human renal progenitors. *J. Am. Soc. Nephrol.* 20: 322-332.
- Lasagni, L., et al. 2010. Notch activation differentially regulates renal progenitors proliferation and differentiation toward the podocyte lineage in glomerular disorders. *Stem Cells* 28: 1674-1685.
- Jiang, W., et al. 2011. CD24: a novel surface marker for PDX1-positive pancreatic progenitors derived from human embryonic stem cells. *Stem Cells* 29: 609-617.
- Ricci, F., et al. 2012. Ovarian carcinoma tumor-initiating cells have a mesenchymal phenotype. *Cell Cycle* 11: 1966-1976.
- Jinesh, G.G., et al. 2017. Surface PD-L1, E-cadherin, CD24, and VEGFR2 as markers of epithelial cancer stem cells associated with rapid tumorigenesis. *Sci. Rep.* 7: 9602.
- Huang, S.Y., et al. 2018. CD69 partially inhibits apoptosis and erythroid differentiation via CD24, and their knockdown increase imatinib sensitivity in Bcr-Abl-positive cells. *J. Cell. Physiol.* 233: 7467-7479.
- Shah, K.N., et al. 2019. Aurora kinase A drives the evolution of resistance to third-generation EGFR inhibitors in lung cancer. *Nat. Med.* 25: 111-118.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.