SANTA CRUZ BIOTECHNOLOGY, INC.

CD24 (ALB9): sc-58999

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.

REFERENCES

1. Kemshead, J.T., et al. 1982. Monoclonal antibodies defining markers with apparent selectivity for particular haemopoietic cell types may also detect antigens on cells of neural crest origin. Hybridoma 1: 109-123.
2. Hsu, S.M. and Jaffe, E.S. 1984. Phenotypic expression of B lymphocytes. Identification with monoclonal antibodies in normal lymphoid tissues. Am. J. Pathol. 114: 387-395.
3. Fischer, G.F., et al. 1990. Signal transduction in lymphocytic and myeloid cells via CD24, a new member of phosphoinositol-anchored membrane molecules. J. Immunol. 144: 638-641.
4. Kay, R., et al. 1991. CD24, a signal transducer modulating B cell activation responses, is a very short peptide with a glycosyl phosphatidylinositol membrane anchor. J. Immunol. 147: 1412-1416.
5. Jackson, D., et al. 1992. CD24, a signal-transducing molecule expressed on human B cells, is a major surface antigen on small cell lung carcinomas. Cancer Res. 52: 5264-5270.
6. Hubbe, M. and Altevogt, P. 1994. Heat-stable antigen/CD24 on mouse T lymphocytes: evidence for a costimulatory function. Eur. J. Immunol. 24: 731-737.
7. Williams, L.A., et al. 1996. Identification of a novel dendritic cell surface antigen defined by carbohydrate specific CD24 antibody cross-reactivity. Immunology 89: 120-125.
8. Fogel, M., et al. 1999. CD24 is a marker for human breast carcinoma. Cancer Lett. 143: 87-94.

CHROMOSOMAL LOCATION

Genetic locus: CD24 (human) mapping to 6p25.3.

SOURCE

CD24 (ALB9) is a mouse monoclonal antibody raised against bone marrow of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.1% stabilizer protein.

APPLICATIONS

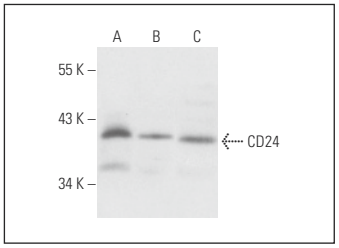
CD24 (ALB9) is recommended for detection of CD24 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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

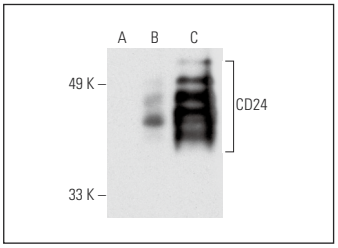
Molecular Weight of CD24: 35-45 kDa.

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

DATA



CD24 (ALB9): sc-58999. Western blot analysis of CD24 expression in GA-10 (**A**), HeLa (**B**) and A549 (**C**) whole cell lysates.



CD24 (ALB9): sc-58999. 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.

SELECT PRODUCT CITATIONS

1. Ceppi, P., et al. 2014. CD95 and CD95L promote and protect cancer stem cells. Nat. Commun. 5: 5238.
2. Twomey, J.D. and Zhang, B. 2023. Exploring the role of hypoxia-inducible carbonic anhydrase IX (CAIX) in circulating tumor cells (CTCs) of breast cancer. Biomedicines 11: 934.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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