SANTA CRUZ BIOTECHNOLOGY, INC.

CD24 (ML5): sc-53660

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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., et al. 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.

CHROMOSOMAL LOCATION

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

SOURCE

CD24 (ML5) is a mouse monoclonal antibody raised against CD24 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CD24 (ML5) 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

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.

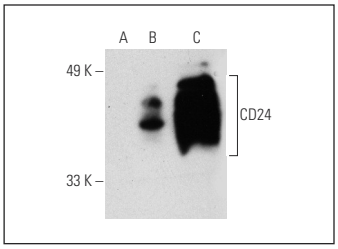
RESEARCH USE

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

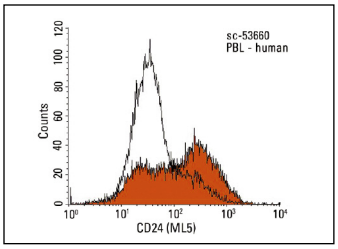
STORAGE

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

DATA



CD24 (ML5): sc-53660. 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 (ML5): sc-53660. Indirect FCM analysis of human peripheral blood leukocytes stained with CD24 (ML5), followed by PE-conjugated goat anti-mouse IgG_{2a}: sc-3765. Black line histogram represents the isotype control, normal mouse IgG_{2a}: sc-3878.

SELECT PRODUCT CITATIONS

1. Mumcuoglu, M., et al. 2010. The ability to generate senescent progeny as a mechanism underlying breast cancer cell heterogeneity. PLoS ONE 5: e11288.
2. Celià-Terrassa, T., et al. 2012. Epithelial-mesenchymal transition can suppress major attributes of human epithelial tumor-initiating cells. J. Clin. Invest. 122: 1849-1868.
3. Wang, L., et al. 2015. Intracellular CD24 disrupts the ARF-NPM interaction and enables mutational and viral oncogene-mediated p53 inactivation. Nat. Commun. 6: 5909.

PROTOCOLS

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

CONJUGATES

See **CD24 (SN3): sc-19585** for CD24 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.