SANTA CRUZ BIOTECHNOLOGY, INC.

CD24 (M1/69.16.11.HL): sc-81722



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.
- 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.
- 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.
- 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., et al. 1994. Heat-stable antigen/CD24 on mouse T lymphocytes: evidence for a costimulatory function. Eur. J. Immunol. 24: 731-737.
- 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: Cd24a (mouse) mapping to 10 B2.

SOURCE

CD24 (M1/69.16.11.HL) is a rat monoclonal antibody raised against C57BL/10 mouse splenic T cells and concanavalin A-activated splenocytes.

PRODUCT

Each vial contains 200 μg lgG_{2b} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD24 (M1/69.16.11.HL) is available conjugated to fluorescein (sc-81722 FITC), 200 $\mu g/ml,$ for IF, IHC(P) and FCM.

APPLICATIONS

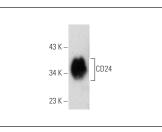
CD24 (M1/69.16.11.HL) is recommended for detection of CD24 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10 cells).

Suitable for use as control antibody for CD24 siRNA (m): sc-29979, CD24 shRNA Plasmid (m): sc-29979-SH and CD24 shRNA (m) Lentiviral Particles: sc-29979-V.Molecular Weight of CD24: 35-45 kDa.

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Positive Controls: WEHI-231 whole cell lysate: sc-2213, mouse brain extract: sc-2253 or RAW 264.7 whole cell lysate: sc-2211.

DATA



CD24 (M1/69.16.11.HL): sc-81722. Western blot analysis of CD24 expression in mouse brain tissue extract.

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.

CONJUGATES

See **CD24 (M1/69): sc-19651** for CD24 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.