SANTA CRUZ BIOTECHNOLOGY, INC.

CD24 (M-20): sc-7036

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.
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., et al. 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.
9. Suzuki, T., et al. 2001. CD24 induces apoptosis in human B cells via the glycolipid-enriched membrane domains/rafts-mediated signaling system. J. Immunol. 166: 5567-5577.

CHROMOSOMAL LOCATION

Genetic locus: Cd24a (mouse) mapping to 10 B2.

SOURCE

CD24 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CD24 of mouse origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-7036 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as phycoerythrin (sc-7036 PE) or fluorescein (sc-7036 FITC) conjugates for flow cytometry, 100 tests.

APPLICATIONS

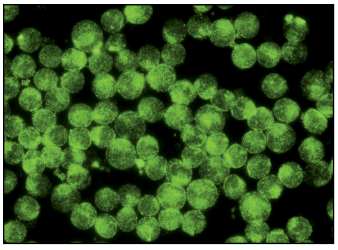
CD24 (M-20) is recommended for detection of CD24 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

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

DATA



CD24 (M-20): sc-7036. Immunofluorescence staining of methanol-fixed WEHI-231 cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Ermert, L., et al. 1999. Rat pulmonary cyclooxygenase-2 expression in response to endotoxin challenge. Am. J. Pathol. 155: 1275-1287.

STORAGE

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