SANTA CRUZ BIOTECHNOLOGY, INC.

CD43 (MT1): sc-51727

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Over 100 cell surface markers have been identified through the use of monoclonal antibodies. Many of these markers have proven useful in identifying a specific subpopulation of cells within a mixed colony. Accordingly, these molecules have been assigned a "cluster of differentiation" (CD) designation. CD43 is the major O-glycosylated cell-surface associated sialoglycoprotein found on the cell membranes of leukocytes. It is a member of the surface mucin family which plays a central role in cellular adhesion tumor progression. Also called leukosialin, CD43 is best known as a maker for identifying normal and neoplastic T cells and a subset of neoplastic B cells within tissues. CD43 is thought to function as a negative regulator of cellular adhesion.

REFERENCES

1. Williams, A.F., et al. 1977. Analysis of cell surfaces by xenogeneic myeloma-hybrid antibodies: differentiation antigens of rat lymphocytes. Cell 12: 663-673.
2. Holter, W., et al. 1991. Phenotypical and functional characterization of leukocytes—the CD-system. Wien. Klin. Wochenschr. 103: 247-262.
3. Kim, Y.B., et al. 1994. CD11/CD18 panel report for swine CD workshop. 1994. Vet. Immunol. Immunopathol. 43: 289-291.
4. Manjunath, N., et al. 1995. Negative regulation of T-cell adhesion and activation by CD43. Nature 377: 535-538.
5. Sanchez-Mateos, P., et al. 1995. Regulatory role of CD43 leukosialin in integrin-mediated T-cell adhesion to endothelial and extracellular matrix ligands and is polar redistribution to a cellular uropod. Blood 86: 2228-2239.
6. Baeckstrom, D., et al. 1995. Expression of the leukocyte-associated sialoglycoprotein CD43 by a colon carcinoma cell line. J. Biol. Chem. 270: 13688-13692.
7. Lynch, E.F., et al. 1995. CD43 and CD5 antibodies define four normal and neoplastic B-cell subsets: a three-color flow cytometric study. Cytometry 22: 223-231.
8. Ellies, L.G., et al. 1996. The CD43 130 kDa peripheral T cell activation antigen is downregulated in thymic positive selection. Blood 88: 1725-1732.
9. Santamaria, M., et al. 1996. Specific monoclonal antibodies against leukocyte restricted cell surface molecule CD43 react with nonhematopoietic tumor cells. Cancer Res. 56: 3526-3529.

CHROMOSOMAL LOCATION

Genetic locus: SPN (human) mapping to 16p11.2.

SOURCE

CD43 (MT1) is a mouse monoclonal antibody raised against isolated lymphocytes of human origin.

STORAGE

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

PRODUCT

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

CD43 (MT1) is available conjugated either phycoerythrin (sc-51727 PE, 100 tests in 2 ml) or fluorescein (sc-51727 FITC, 100 tests in 2 ml), for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

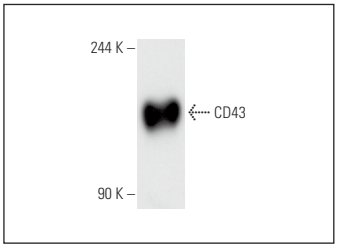
CD43 (MT1) is recommended for detection of CD43 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 CD43 siRNA (h): sc-29999, CD43 shRNA Plasmid (h): sc-29999-SH and CD43 shRNA (h) Lentiviral Particles: sc-29999-V.

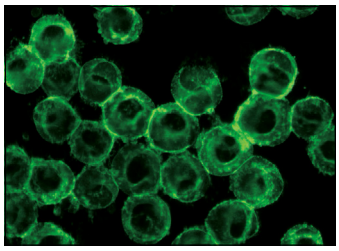
Molecular Weight of CD43: 115-130 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, SK-N-SH cell lysate: sc-2410 or Jurkat whole cell lysate: sc-2204.

DATA



CD43 (MT1): sc-51727. Western blot analysis of CD43 expression in Jurkat whole cell lysate.



CD43 (MT1): sc-51727. Immunofluorescence staining of methanol-fixed K-562 cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Van Handel, B., et al. 2010. The first trimester human placenta is a site for terminal maturation of primitive erythroid cells. Blood 116: 3321-3330.
2. Wang, Y., et al. 2020. LGR4, not LGR5, enhances hPSC hematopoiesis by facilitating mesoderm induction via TGF-β signaling activation. Cell Rep. 31: 107600.

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.