CD43 (OX57): sc-53043



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 0-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 marker 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

- Holter, W., Stockinger, H., Majdic, O. and Knapp, W. 1991. Phenotypical and functional characterization of leukocytes—the CD-system. Wiener Klin. Wochen. 103: 247-262.
- Kim, Y.B., Zhang, J., Davis, W.C. and Lunney, J.K. 1994. CD11/CD18 panel report for swine CD workshop. 1994. Vet. Immunol. Immunopathol. 43: 289-291.
- Sanchez-Mateos, P., Campanero, M.R., del Pozo, M.A. and Sanchez-Madrid, F. 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.
- 4. Lynch, E.F., Jones, P.A. and Swerdlow, S.H. 1995. CD43 and CD5 antibodies define four normal and neoplastic B-cell subsets: a three-color flow cytometric study. Cytometry 22: 223-231.
- Baeckstrom, D., Zhang, K., Asker, N., Ruetschi, U., Ek, M. and Hansson, G.C. 1995. Expression of the leukocyte-associated sialoglycoprotein CD43 by a colon carcinoma cell line. J. Biol. Chem. 270: 13688-13692.
- Manjunath, N., Correa, M., Ardman, M. and Ardman, B. 1995. Negative regulation of T-cell adhesion and activation by CD43. Nature 377: 535-538.
- 7. Ellies, L.G., Tao, W., Fellinger, W., Teh, H.S. and Ziltener, H.J. 1996. The CD43 130 kDa peripheral T cell activation antigen is downregulated in thymic positive selection. Blood 88: 1725-1732.
- Santamaria, M., Lopez-Beltran, A., Toro, M., Pena, J. and Molina, I.J. 1996. Specific monoclonal antibodies against leukocyte restricted cell surface molecule CD43 react with nonhematopoietic tumor cells. Cancer Res. 56: 3526-3529.
- van den Berg, T.K., Puklavec, M.J., Barclay, A.N. and Dijkstra, C.D. 2001.
 Monoclonal antibodies against rat leukocyte surface antigens. Immunol. Rev. 184109-184116.

CHROMOSOMAL LOCATION

Genetic locus: Spn (mouse) mapping to 7 F3.

SOURCE

CD43 (0X57) is a mouse monoclonal antibody raised against CD43 of rat origin.

PRODUCT

Each vial contains 200 μg lgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for blocking, sc-53043 L, 200 μg /0.1 ml.

CD43 (0X57) is available conjugated to either phycoerythrin (sc-53043 PE) or fluorescein (sc-53043 FITC), 200 μ g/ml, for IF, IHC(P) and FCM.

APPLICATIONS

CD43 (OX57) is recommended for detection of CD43 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for CD43 siRNA (m): sc-37247, CD43 shRNA Plasmid (m): sc-37247-SH and CD43 shRNA (m) Lentiviral Particles: sc-37247-V.

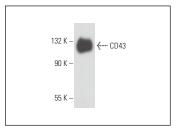
Molecular Weight of CD43: 115-130 kDa.

Positive Controls: rat PBL whole cell lysate.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz* Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



CD43 (OX57): sc-53043. Western blot analysis of CD43 expression in rat PBL whole cell lysate.

STORAGE

Store at 4° C, **D0 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.