

CD43 (W3/13): sc-53044



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 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

- Williams, A.F., et al. 1977. Analysis of cell surfaces by xenogeneic myeloma-hybrid antibodies: differentiation antigens of rat lymphocytes. *Cell* 12: 663-673.
- Holter, W., et al. 1991. Phenotypical and functional characterization of leukocytes—the CD-system. *Wien. Klin. Wochenschr.* 103: 247-262.

CHROMOSOMAL LOCATION

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

SOURCE

CD43 (W3/13) is a mouse monoclonal antibody raised against thymocyte membrane of rat origin.

PRODUCT

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

CD43 (W3/13) is available conjugated to agarose (sc-53044 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53044 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53044 PE), fluorescein (sc-53044 FITC), Alexa Fluor® 488 (sc-53044 AF488), Alexa Fluor® 546 (sc-53044 AF546), Alexa Fluor® 594 (sc-53044 AF594) or Alexa Fluor® 647 (sc-53044 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53044 AF680) or Alexa Fluor® 790 (sc-53044 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CD43 (W3/13) is recommended for detection of a monomorphic determinant expressed on rat thymocytes, T lymphocytes, plasma cells, polymorphs, stem cells and brain of mouse and rat 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 10⁶ cells).

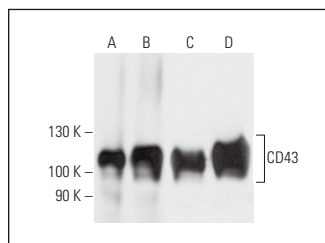
Molecular Weight of CD43: 115-130 kDa.

Positive Controls: rat thymus extract: sc-2401 or rat PBL tissue extract.

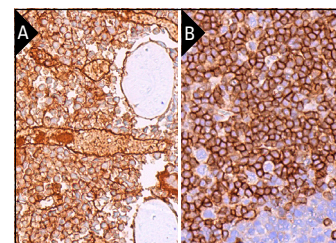
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ 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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistochemistry Mount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



CD43 (W3/13): sc-53044. Western blot analysis of CD43 expression in rat PBL (A,C) and rat thymus (B,D) tissue extracts under reducing (A,B) and non-reducing (C,D) conditions.



CD43 (W3/13): sc-53044. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse bone marrow tissue showing membrane and cytoplasmic staining of hematopoietic cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded rat lymph node tissue showing membrane and cytoplasmic staining of cells in non-germinal center (B).

SELECT PRODUCT CITATIONS

- Souza, C.S., et al. 2019. Preventive effect of exercise training on diabetic kidney disease in ovariectomized rats with type 1 diabetes. *Exp. Biol. Med.* 1: 1535370219843830.
- Wang, D.D., et al. 2021. Qing-Luo-Yin alleviated experimental arthritis in rats by disrupting immune feedback between inflammatory t cells and monocytes: key evidences from its effects on immune cell phenotypes. *J. Inflamm. Res.* 14: 7467-7486.

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.

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