

Thy-1 (YBM29/21): sc-53117

BACKGROUND

Over 100 cell surface markers have been identified through the use of monoclonal antibodies. Many of these markers have proven useful in identifying specific subpopulations of cells within mixed colonies. Accordingly, these molecules have been assigned a "cluster of differentiation" (CD) designation. One such marker, designated Thy-1 (also referred to as CDw90), is a phosphatidyl-anchored cell surface glycoprotein which, when coexpressed with CD34 on cells from normal human bone marrow, identifies a subpopulation that includes putative hematopoietic, pluripotent stem cells. Thy-1⁺ cells from bone marrow have been implicated in syngeneic graft versus host disease and may serve to regulate autoreactivity after bone marrow transplant.

REFERENCES

- Holter, W., et al. 1991. Phenotypical and functional characterization of leukocytes—the CD-system. *Wien. Klin. Wochenschr.* 103: 247-262.
- Bryson, J.S., et al. 1993. Thy-1⁺ bone marrow cells regulate the induction of murine syngeneic graft-versus-host disease. *Transplantation* 56: 941-945.
- Kim, Y.B., et al. 1994. CD11/CD18 panel report for swine CD workshop. *Vet. Immunol. Immunopathol.* 43: 289-291.
- Firer, M.A., et al. 1995. The Thy-1 molecule: its properties and functions. *Isr. J. Med. Sci.* 31: 382-386.
- Holden, J.T., et al. 1995. Characterization of Thy-1 (CDw90) expression in CD34⁺ acute leukemia. *Blood* 86: 60-65.
- Fujita, N., et al. 1995. Apoptosis inhibition by anti-Mr 23,000 (Thy-1) monoclonal antibodies without inducing Bcl-2 expression. *Cell Growth Differ.* 6: 355-362.
- Campos, L., et al. 1996. Expression of Thy-1 antigen (CDw90) on adult acute leukemia blast cells. *Blood* 87: 413-414.

CHROMOSOMAL LOCATION

Genetic locus: THY1 (human) mapping to 11q23.3; Thy1 (mouse) mapping to 9 A5.1.

SOURCE

Thy-1 (YBM29/21) is a rat monoclonal antibody raised against Thy-1 of mouse origin.

PRODUCT

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

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

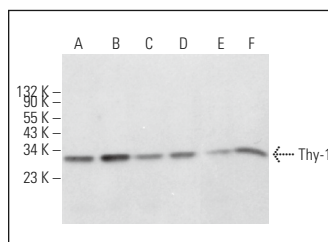
Thy-1 (YBM29/21) is recommended for detection of Thy-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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 10⁶ cells).

Suitable for use as control antibody for Thy-1 siRNA (h): sc-42837, Thy-1 siRNA (m): sc-36667, Thy-1 shRNA Plasmid (h): sc-42837-SH, Thy-1 shRNA Plasmid (m): sc-36667-SH, Thy-1 shRNA (h) Lentiviral Particles: sc-42837-V and Thy-1 shRNA (m) Lentiviral Particles: sc-36667-V.

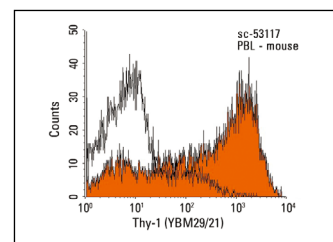
Molecular Weight of Thy-1 glycosylation: 25-37 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, F9 cell lysate: sc-2245 or IMR-32 cell lysate: sc-2409.

DATA



Thy-1 (YBM29/21): sc-53117. Western blot analysis of Thy-1 expression in WEHI-231 (A), F9 (B), EOC 20 (C), TK-1 (D), NIH/3T3 (E) and IMR-32 (F) whole cell lysates.



Thy-1 (YBM29/21): sc-53117. Indirect FCM analysis of mouse peripheral blood leukocytes stained with Thy-1 (YBM29/21), followed by PE-conjugated goat anti-rat IgG: sc-3740. Black line histogram represents the isotype control, normal rat IgG_{2c}.

SELECT PRODUCT CITATIONS

- Depianto, D., et al. 2010. Keratin 17 promotes epithelial proliferation and tumor growth by polarizing the immune response in skin. *Nat. Genet.* 42: 910-914.

RESEARCH USE

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



See **Thy-1 (aThy-1A1): sc-53456** for Thy-1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.