

Thy-1 (ER4): sc-81667

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, pleuripotent 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-M_r 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 (mouse) mapping to 9 A5.1.

SOURCE

Thy-1 (ER4) is a mouse monoclonal antibody raised against thymocytes of rat origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for *in vivo* induction of glomerulonephritis and proteinuria, sc-81667 L, 200 µg/0.1 ml.

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 (ER4) is recommended for detection of Thy-1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

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

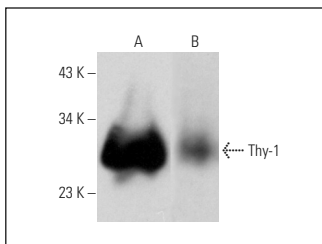
Molecular Weight of Thy-1: 25-37 kDa.

Positive Controls: BW5147 cell lysate: sc-3800, RBL-1 whole cell lysate: sc-364790 or PC-12 cell lysate: sc-2250.

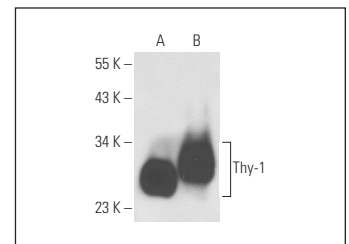
RECOMMENDED SUPPORT REAGENTS

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).

DATA



Thy-1 (ER4): sc-81667. Western blot analysis of Thy-1 expression in BW5147 (A) and PC-12 (B) whole cell lysates.



Thy-1 (ER4): sc-81667. Western blot analysis of Thy-1 expression in rat brain tissue extract (A) and RBL-1 whole cell lysate (B).

SELECT PRODUCT CITATIONS

- Mocker, A., et al. 2019. Renal chemerin expression is induced in models of hypertensive nephropathy and glomerulonephritis and correlates with markers of inflammation and fibrosis. *Int. J. Mol. Sci.* 20: 6240.

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.