

Thy-1 (AF-9): sc-59396

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.

CHROMOSOMAL LOCATION

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

SOURCE

Thy-1 (AF-9) is a mouse monoclonal antibody raised against purified Thy-1 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Thy-1 (AF-9) 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) 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.

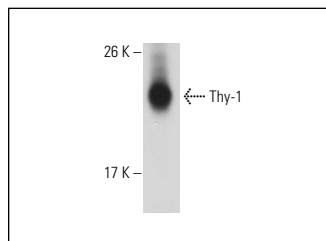
Molecular Weight of Thy-1 glycosylation: 25-37 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, CTLL-2 cell lysate: sc-2242 or IMR-32 cell lysate: sc-2409.

STORAGE

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

DATA



Thy-1 (AF-9): sc-59396. Western blot analysis of Thy-1 expression in mouse PBL whole cell lysate.

SELECT PRODUCT CITATIONS

- Galateanu, B., et al. 2012. Layer-shaped alginate hydrogels enhance the biological performance of human adipose-derived stem cells. *BMC Biotechnol.* 12: 35.
- Pratheesh, M.D., et al. 2013. Isolation, culture and characterization of caprine mesenchymal stem cells derived from amniotic fluid. *Res. Vet. Sci.* 94: 313-319.
- Chinnici, C.M., et al. 2014. Isolation and characterization of multipotent cells from human fetal dermis. *Cell Transplant.* 23: 1169-1185.
- Powell, R.H., et al. 2016. Phenotypic and molecular characterization of domestic cat (*Felis catus*) spermatogonial stem cells. *Biol. Reprod.* 95: 20.
- Patil, S., et al. 2019. Culture and characterization of human dental pulp-derived stem cells as limbal stem cells for corneal damage repair. *Mol. Med. Rep.* 20: 4688-4694.
- Kacham, S., et al. 2021. Human umbilical cord-derived mesenchymal stem cells promote corneal epithelial repair *in vitro*. *Cells* 10: 1254.
- Shamsnajafabadi, H., et al. 2022. Neural differentiation of human retinal pigment epithelial cells on alginate/gelatin substrate. *Mol. Vis.* 28: 412-431.

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.

CONJUGATES

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.