

# Thy-1 (aTHy-1A1): sc-53456

## 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<sup>+</sup> cells from bone marrow have been implicated in syngeneic graft versus host disease and may serve to regulate autoreactivity after bone marrow transplant.

## CHROMOSOMAL LOCATION

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

## SOURCE

Thy-1 (aTHy-1A1) is a mouse monoclonal antibody raised against purified Thy-1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Thy-1 (aTHy-1A1) is available conjugated to agarose (sc-53456 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53456 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53456 PE), fluorescein (sc-53456 FITC), Alexa Fluor® 488 (sc-53456 AF488), Alexa Fluor® 546 (sc-53456 AF546), Alexa Fluor® 594 (sc-53456 AF594) or Alexa Fluor® 647 (sc-53456 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53456 AF680) or Alexa Fluor® 790 (sc-53456 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

Thy-1 (aTHy-1A1) 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 10<sup>6</sup> 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.

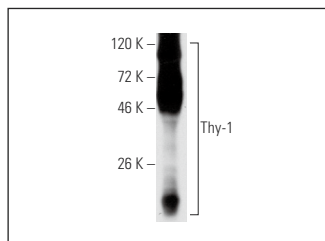
Molecular Weight of Thy-1 glycosylation: 25-37 kDa.

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

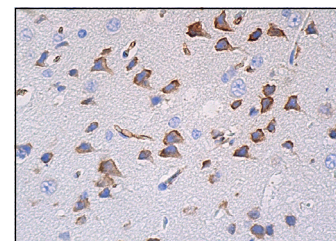
## STORAGE

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

## DATA



Thy-1 (aTHy-1A1): sc-53456. Western blot analysis of Thy-1 expression in mouse PBL whole cell lysate.



Thy-1 (aTHy-1A1): sc-53456. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse brain tissue showing cytoplasmic staining of neuronal cells and glial cells.

## SELECT PRODUCT CITATIONS

- Yalvaç, M.E., et al. 2010. Human tooth germ stem cells preserve neuro-protective effects after long-term cryo-preservation. *Curr. Neurovasc. Res.* 7: 49-58.
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- Cheng, B.Q., et al. 2014. Wnt/β-catenin aids in regulating the proliferation of Hep G2 cells mediated by Thy-1. *Genet. Mol. Res.* 13: 5115-5127.
- Prado, A.A., et al. 2015. Characterization of mesenchymal stem cells derived from the equine synovial fluid and membrane. *BMC Vet. Res.* 11: 281.
- Demirel, S., et al. 2016. Tooth replantation with adipose tissue stem cells and fibrin sealant: microscopic analysis of rat's teeth. *Springerplus* 5: 656.
- Zhang, M., et al. 2017. Delivery of biotinylated IGF-1 with biotinylated self-assembling peptides combined with bone marrow stem cell transplantation promotes cell therapy for myocardial infarction. *Exp. Ther. Med.* 14: 3441-3446.
- Zhang, L., et al. 2018. Thioredoxin-1 protects bone marrow-derived mesenchymal stromal cells from hyperoxia-induced injury *in vitro*. *Oxid. Med. Cell. Longev.* 2018: 1023025.
- Stocco, E., et al. 2019. Infrapatellar fat pad stem cells responsiveness to microenvironment in osteoarthritis: from morphology to function. *Front. Cell Dev. Biol.* 7: 323.
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## RESEARCH USE

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