SANTA CRUZ BIOTECHNOLOGY, INC.

TIM-1 (A-12): sc-518008

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CD4+ T helper lymphocytes can be divided into types 1 (Th1) and 2 (Th2) on the basis of their cytokine secretion patterns. Th1 cells and their associated cytokines are involved in cell-mediated immunity to intracellular pathogens and delayed-type hypersensitivity reactions. Th2 cells are involved in the control of extracellular helminthic infections and the promotion of atopic and allergic diseases. T cell Ig- and mucin-domain-containing molecules (TIMs) are a family of molecules expressed on T cells. TIM-1 is a single-pass type I membrane protein that is associated with the development of Th2 biased immune responses and selectively expressed on Th2 cells. TIM-1, also designated hepatitis A virus cellular receptor-1 (HAVcr-1) or T cell membrane protein 1, acts as a cell-surface receptor for hepatitis A virus and may also play a role in asthma and allergic disease regulation. TIM-1 is a widely expressed protein with highest levels detected in testis and kidney.

CHROMOSOMAL LOCATION

Genetic locus: HAVCR1 (human) mapping to 5q33.3.

SOURCE

TIM-1 (A-12) is a mouse monoclonal antibody raised against amino acids 203-359 mapping at the C-terminus of TIM-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TIM-1 (A-12) is available conjugated to agarose (sc-518008 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-518008 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518008 PE), fluorescein (sc-518008 FITC), Alexa Fluor® 488 (sc-518008 AF488), Alexa Fluor® 546 (sc-518008 AF546), Alexa Fluor® 594 (sc-518008 AF594) or Alexa Fluor® 647 (sc-518008 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518008 AF680) or Alexa Fluor® 790 (sc-518008 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

TIM-1 (A-12) is recommended for detection of TIM-1 of human origin by Western Blotting (starting dilution 1:100, 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TIM-1 siRNA (h): sc-61691, TIM-1 shRNA Plasmid (h): sc-61691-SH and TIM-1 shRNA (h) Lentiviral Particles: sc-61691-V.

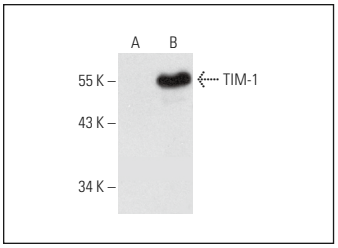
Molecular Weight of TIM-1: 68 kDa.

Positive Controls: human TIM-1 transfected HEK293T whole cell lysate.

RESEARCH USE

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

DATA



TIM-1 (A-12): sc-518008. Western blot analysis of TIM-1 expression in non-transfected (**A**) and human TIM-1 transfected (**B**) HEK293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Gezginci-Oktayoglu, S., et al. 2018. 4-Methylcatechol prevents streptozotocin-induced acute kidney injury through modulating NGF/TrkA and ROS-related Akt/GSK3β/β-catenin pathways. Int. Immunopharmacol. 64: 52-59.
2. Sanajou, D., et al. 2018. Reduction of renal tubular injury with a RAGE inhibitor FPS-ZM1, valsartan and their combination in streptozotocin-induced diabetes in the rat. Eur. J. Pharmacol. 842: 40-48.
3. Nazari Soltan Ahmad, S., et al. 2019. Tangeretin protects renal tubular epithelial cells against experimental cisplatin toxicity. Iran. J. Basic Med. Sci. 22: 179-186.
4. Dissanayake, L.V., et al. 2022. Lack of xanthine dehydrogenase leads to a remarkable renal decline in a novel hypouricemic rat model. iScience 25: 104887.
5. Zhu, M., et al. 2023. AMPK activation coupling SENP1-Sirt3 axis protects against acute kidney injury. Mol. Ther. 31: 3052-3066.
6. Hu, J.W., et al. 2024. Inhibition of mitochondrial over-division by (+)-14,15-Dehydrovincamine attenuates cisplatin-induced acute kidney injury via the JNK/Mff pathway. Free Radic Biol. Med. 224: 190-203.
7. Lu, J., et al. 2024. Acetyl-CoA synthetase 2 promotes diabetic renal tubular injury in mice by rewiring fatty acid metabolism through SIRT1/ChREBP pathway. Acta Pharmacol. Sin. 45: 366-377.
8. He, S., et al. 2025. High-density lipoprotein nanoparticles spontaneously target to damaged renal tubules and alleviate renal fibrosis by remodeling the fibrotic niches. Nat. Commun. 16: 1061.

PROTOCOLS

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