SANTA CRUZ BIOTECHNOLOGY, INC.

HA-1 (C-1): sc-393579

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Major histocompatibility complex (MHC) molecules, which include human leukocyte antigens (HLAs), form an integral part of the immune response system. They are cell-surface receptors that bind foreign peptides and present them to cytotoxic T lymphocytes (CTLs). Minor histocompatibility antigens can form an immune response upon recognition by certain T-cells when complexed with MHC molecules. HA-1 (minor histocompatibility protein HA-1), also known as HA-1, HLA-HA1 or HMHA1, is a 1,136 amino acid GTPase activator of Rho-type GTPases. Expressed in dendritic cells, epidermal Langerhans cells, hematopoietic cells, peripheral blood mononuclear cells and all leukemia and lymphoma cell lines, HA-1 is also found in various solid tissues and tumors. Highly phosphorylated, HA-1 contains one Rho-GAP domain, a single phorbol-ester/DAG-type zinc finger and is encoded by a gene located on human chromosome 19p13.3.

CHROMOSOMAL LOCATION

Genetic locus: HMHA1 (human) mapping to 19p13.3.

SOURCE

HA-1 (C-1) is a mouse monoclonal antibody raised against amino acids 1-187 mapping at the N-terminus of HA-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.

HA-1 (C-1) is available conjugated to agarose (sc-393579 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393579 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393579 PE), fluorescein (sc-393579 FITC), Alexa Fluor® 488 (sc-393579 AF488), Alexa Fluor® 546 (sc-393579 AF546), Alexa Fluor® 594 (sc-393579 AF594) or Alexa Fluor® 647 (sc-393579 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393579 AF680) or Alexa Fluor® 790 (sc-393579 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

HA-1 (C-1) is recommended for detection of HA-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 HA-1 siRNA (h): sc-97742, HA-1 shRNA Plasmid (h): sc-97742-SH and HA-1 shRNA (h) Lentiviral Particles: sc-97742-V.

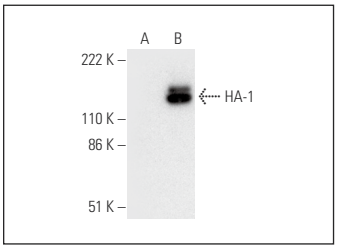
Molecular Weight of HA-1: 125 kDa.

Positive Controls: HA-1 (h): 293T Lysate: sc-116876 or Raji whole cell lysate: sc-364236.

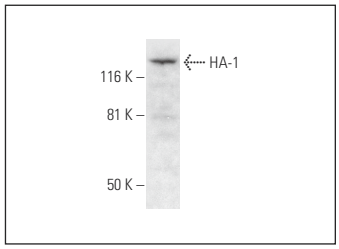
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



HA-1 (C-1): sc-393579. Western blot analysis of HA-1 expression in non-transfected: sc-117752 (**A**) and human HA-1 transfected: sc-116876 (**B**) 293T whole cell lysates.



HA-1 (C-1): sc-393579. Western blot analysis of HA-1 expression in Raji whole cell lysate.

SELECT PRODUCT CITATIONS

1. Das, S., et al. 2016. Na^+ influx induced by new antimalarials causes rapid alterations in the cholesterol content and morphology of *Plasmodium falciparum.* PLoS Pathog. 12: e1005647.
2. Tu, S., et al. 2018. Effect of taurine on cell proliferation and apoptosis human lung cancer A549 cells. Oncol. Lett. 15: 5473-5480.
3. Kuo, C.C., et al. 2019. Metastatic colorectal cancer rewrites metabolic program through a Glut3-YAP-dependent signaling circuit. Theranostics 9: 2526-2540.
4. Ciccarelli, B.T., et al. 2020. Examination of clinically-derived p210 Bcr/Abl1 RhoGEF mutations in a murine bone marrow transplantation model of CML. Leuk. Res. 97: 106440.

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.