SANTA CRUZ BIOTECHNOLOGY, INC.

AHA-1 (F-7): sc-166610

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

AHA-1 stimulates the inherent ATPase activity of yeast and human HSP 90 and interacts with the cytoplasmic tail of vesticular stomatitis virus glycoprotein. AHA-1 regulates HSP 90 by influencing the conformational state of the "ATP lid" and consequent N-terminal dimerization. It is crucial for cell viability under non-optimal growth conditions when HSP 90 levels are limiting. AHA-1 is a cytosolic protein and may transiently interact with the endoplasmic reticulum. It can have an affect on one step in the endoplasmic to Golgi trafficking. AHA-1 is expressed in numerous tissues, including brain, heart, skeletal muscle and kidney and, at lower levels, in liver and placenta. It is induced by heat shock and treatment with the HSP 90 inhibitor 17-demeth-oxygeldanamycin.

CHROMOSOMAL LOCATION

Genetic locus: AHSA1 (human) mapping to 14q24.3; Ahsa1 (mouse) mapping to 12 D2.

SOURCE

AHA-1 (F-7) is a mouse monoclonal antibody raised against amino acids 249-338 mapping at the C-terminus of AHA-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.

AHA-1 (F-7) is available conjugated to agarose (sc-166610 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-166610 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166610 PE), fluorescein (sc-166610 FITC), Alexa Fluor® 488 (sc-166610 AF488), Alexa Fluor® 546 (sc-166610 AF546), Alexa Fluor® 594 (sc-166610 AF594) or Alexa Fluor® 647 (sc-166610 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166610 AF680) or Alexa Fluor® 790 (sc-166610 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

AHA-1 (F-7) is recommended for detection of AHA-1 of mouse, rat and 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 AHA-1 siRNA (h): sc-44863, AHA-1 siRNA (m): sc-44864, AHA-1 shRNA Plasmid (h): sc-44863-SH, AHA-1 shRNA Plasmid (m): sc-44864-SH, AHA-1 shRNA (h) Lentiviral Particles: sc-44863-V and AHA-1 shRNA (m) Lentiviral Particles: sc-44864-V.

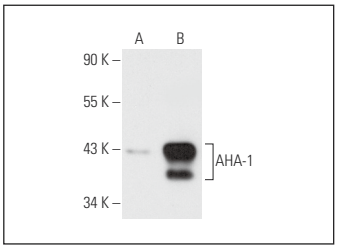
Molecular Weight of AHA-1: 38 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, AHA-1 (m): 293T Lysate: sc-118276 or HeLa whole cell lysate: sc-2200.

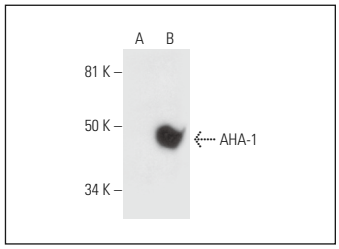
RECOMMENDED SUPPORT REAGENTS

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



AHA-1 (F-7): sc-166610. Western blot analysis of AHA-1 expression in non-transfected: sc-117752 (**A**) and mouse AHA-1 transfected: sc-118277 (**B**) 293T whole cell lysates.



AHA-1 (F-7): sc-166610. Western blot analysis of AHA-1 expression in non-transfected: sc-117752 (**A**) and mouse AHA-1 transfected: sc-118276 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Villar-Conde, S., et al. 2021. The human hippocampus in Parkinson's disease: an integrative stereological and proteomic study. J. Parkinsons Dis. 11: 1345-1365.
2. Liu, X., et al. 2022. HSP 90 and AHA-1 modulate microRNA maturation through promoting the folding of Dicer1. Nucleic Acids Res. 50: 6990-7001.
3. Liu, X., et al. 2022. AHA-1 is an autonomous chaperone for SULT1A1. Chem. Res. Toxicol. 35: 1418-1424.

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.