

AHA-1 (m): 293T Lysate: sc-118276

BACKGROUND

AHA-1 stimulates the inherent ATPase activity of yeast and human HSP 90 and interacts with the cytoplasmic tail of vesicular 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.

REFERENCES

1. Zhang, Q.H., et al. 2000. Cloning and functional analysis of cDNAs with open reading frames for 300 previously undefined genes expressed in CD34⁺ hematopoietic stem/progenitor cells. *Genome Res.* 10: 1546-1560.
2. Hu, R.M., et al. 2000. Gene expression profiling in the human hypothalamus-pituitary-adrenal axis and full-length cDNA cloning. *Proc. Natl. Acad. Sci. USA* 97: 9543-9548.
3. Sevier, C.S., et al. 2001. p38: a novel protein that associates with the vesicular stomatitis virus glycoprotein. *Biochem. Biophys. Res. Commun.* 287: 574-582.
4. Panaretou, B., et al. 2002. Activation of the ATPase activity of HSP 90 by the stress-regulated cochaperone AHA-1. *Mol. Cell* 10: 1307-1318.
5. Lotz, G.P., et al. 2003. AHA-1 binds to the middle domain of HSP 90, contributes to client protein activation, and stimulates the ATPase activity of the molecular chaperone. *J. Biol. Chem.* 278: 17228-17235.

CHROMOSOMAL LOCATION

Genetic locus: Ahsa1 (mouse) mapping to 12 D2.

PRODUCT

AHA-1 (m): 293T Lysate represents a lysate of mouse AHA-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

AHA-1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive AHA-1 antibodies. Recommended use: 10-20 µl per lane.

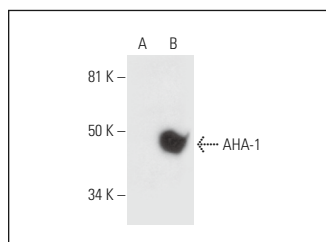
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

AHA-1 (F-7): sc-166610 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse AHA-1 expression in AHA-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

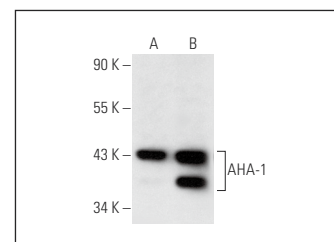
RECOMMENDED SUPPORT REAGENTS

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.

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-118276 (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.

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.