

SAHH (h): 293T Lysate: sc-159779

BACKGROUND

SAHH (S-adenosylhomocysteine hydrolase), also known as AHCY, is a 432 amino acid cytoplasmic protein that localizes to the melanosome, a melanin-containing organelle. An essential component of amino acid biosynthesis, SAHH catalyzes the reversible hydrolysis of S-adenosylhomocysteine (SAH) to produce adenosine and L-homocysteine. Through its catalytic activity, SAHH regulates the intracellular levels of SAH and may play a key role in controlling methyltransferase reactions. SAHH exists as a homotetramer that can bind one NAD per subunit and is involved in the activated methyl cycle (a reaction in which the methyl group of methionine is activated by the formation of S-adenosylmethionine). Defects in the gene encoding SAHH result in elevated levels of methionine which cause hypermethioninemia, a disease characterized by sluggishness, muscle weakness and liver problems.

REFERENCES

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3. Kloor, D. and Osswald, H. 2004. S-adenosylhomocysteine hydrolase as a target for intracellular adenosine action. *Trends Pharmacol. Sci.* 25: 294-297.
4. Shu, S., et al. 2006. S-adenosylhomocysteine hydrolase is localized at the front of chemotaxing cells, suggesting a role for transmethylation during migration. *Proc. Natl. Acad. Sci. USA* 103: 19788-19793.
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6. Li, Q.S., et al. 2007. Comparative kinetics of cofactor association and dissociation for the human and trypanosomal S-adenosylhomocysteine hydrolases. 1. Basic features of the association and dissociation processes. *Biochemistry* 46: 5798-5809.
7. Li, M., et al. 2007. Copper ions inhibit S-adenosylhomocysteine hydrolase by causing dissociation of NAD⁺ cofactor. *Biochemistry* 46: 11451-11458.
8. Yideng, J., et al. 2007. Homocysteine-mediated expression of SAHH, DNMTs, MBD2, and DNA hypomethylation potential pathogenic mechanism in VSMCs. *DNA Cell Biol.* 26: 603-611.

CHROMOSOMAL LOCATION

Genetic locus: AHCY (human) mapping to 20q11.22.

PRODUCT

SAHH (h): 293T Lysate represents a lysate of human SAHH 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

SAHH (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive SAHH antibodies. Recommended use: 10-20 µl per lane.

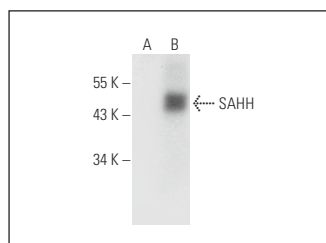
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

SAHH (A-6): sc-393129 is recommended as a positive control antibody for Western Blot analysis of enhanced human SAHH expression in SAHH 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



SAHH (A-6): sc-393129. Western blot analysis of SAHH expression in non-transfected: sc-117752 (A) and human SAHH transfected: sc-159779 (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.