

SAHH-3 (P-14): sc-103875

BACKGROUND

SAHH-3, also known as AHCYL2 (S-adenosylhomocysteine hydrolase-like 2) or KIAA0828, is a 611 amino acid protein that belongs to the adenosylhomocysteinase family and is involved in the pathway of amino acid biosynthesis. Using NAD as a cofactor, SAHH-3 catalyzes the first and only step in the synthesis of L-homocysteine, namely the H₂O-dependent cleavage of S-adenosyl-L-homocysteine to form L-homocysteine and adenosine. The gene encoding SAHH-3 maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in some of the genes localized to chromosome 7 have been linked to osteogenesis imperfecta, Williams-Beuren syndrome, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

1. Nagase, T., Ishikawa, K., Suyama, M., Kikuno, R., Hirose, M., Miyajima, N., Tanaka, A., Kotani, H., Nomura, N. and Ohara, O. 1998. Prediction of the coding sequences of unidentified human genes. XII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 5: 355-364.
2. Dekker, J.W., Budhia, S., Angel, N.Z., Cooper, B.J., Clark, G.J., Hart, D.N. and Kato, M. 2002. Identification of an S-adenosylhomocysteine hydrolase-like transcript induced during dendritic cell differentiation. Immunogenetics 53: 993-1001.
3. Lleonart, M.E., Vidal, F., Gallardo, D., Diaz-Fuertes, M., Rojo, F., Cuatrecasas, M., López-Vicente, L., Kondoh, H., Blanco, C., Carnero, A., Ramón, y. and Cajal, S. 2006. New p53 related genes in human tumors: significant down-regulation in colon and lung carcinomas. Oncol. Rep. 16: 603-608.
4. Osborne, L.R., Joseph-George, A.M. and Scherer, S.W. 2006. Williams-Beuren syndrome diagnosis using fluorescence *in situ* hybridization. Methods Mol. Med. 126: 113-128.
5. Reiner, O., Sapoznik, S. and Sapir, T. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. Neuromolecular Med. 8: 547-565.
6. Shimamura, A. 2006. Shwachman-Diamond syndrome. Semin. Hematol. 43: 178-188.

CHROMOSOMAL LOCATION

Genetic locus: AHCYL2 (human) mapping to 7q32.1; Ahcyl2 (mouse) mapping to 6 A3.3.

SOURCE

SAHH-3 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SAHH-3 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103875 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SAHH-3 (P-14) is recommended for detection of SAHH-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with family member SAHH.

SAHH-3 (P-14) is also recommended for detection of SAHH-3 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for SAHH-3 siRNA (h): sc-89455, SAHH-3 siRNA (m): sc-106529, SAHH-3 shRNA Plasmid (h): sc-89455-SH, SAHH-3 shRNA Plasmid (m): sc-106529-SH, SAHH-3 shRNA (h) Lentiviral Particles: sc-89455-V and SAHH-3 shRNA (m) Lentiviral Particles: sc-106529-V.

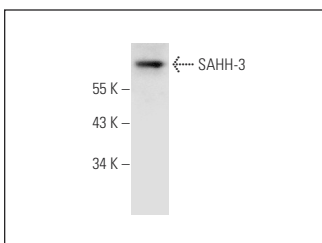
Molecular Weight of SAHH-3: 48 kDa.

Positive Controls: HEL 92.1.7 cell lysate: sc-2270, JEG-3 whole cell lysate: sc-364255 or PC-12 cell lysate: sc-2250.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SAHH-3 (P-14): sc-103875. Western blot analysis of SAHH-3 expression in PC-12 whole cell lysate.

STORAGE

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

RESEARCH USE

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