



SAHH-3 (D-14): sc-103874

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

- Nagase, T., et al. 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.
- Dekker, J.W., et al. 2002. Identification of an S-adenosylhomocysteine hydrolase-like transcript induced during dendritic cell differentiation. Immunogenetics 53: 993-1001.
- Lleonart, M.E., et al. 2006. New p53 related genes in human tumors: significant downregulation in colon and lung carcinomas. Oncol. Rep. 16: 603-608.
- Osborne, L.R., et al. 2006. Williams-Beuren syndrome diagnosis using fluorescence *in situ* hybridization. Methods Mol. Med. 126: 113-128.
- Reiner, O., et al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. Neuromolecular Med. 8: 547-565.
- Shimamura, A. 2006. Shwachman-Diamond syndrome. Semin. Hematol. 43: 178-188.
- Brezinová, J., et al. 2007. Structural aberrations of chromosome 7 revealed by a combination of molecular cytogenetic techniques in myeloid malignancies. Cancer Genet. Cytogenet. 173: 10-16.

CHROMOSOMAL LOCATION

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

SOURCE

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

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 or our catalog for detailed protocols and support products.

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-103874 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SAHH-3 (D-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), 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.

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.

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) 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.

RESEARCH USE

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