

SIAH-1 (N-15): sc-5505

BACKGROUND

SIAH, the human homologue of the *Drosophila* seven in absentia (sina) gene, is a tumor suppressor protein that is expressed in intestinal epithelium and activated during apoptosis. Human SIAH proteins are produced as two distinct gene products, SIAH-1, and a slightly larger protein SIAH-2, which share a highly conserved C-terminal sequence and differ in their N-terminal regions. SIAH-1 contains an N-terminal RING-finger domain, which is required for proteolysis, and a cystein-rich C-terminal domain, which regulates oligomerization and SIAH binding to target proteins. As a tumor suppressor, SIAH-1 binds DCC (deleted in colorectal cancer) and regulates DCC degradation via the ubiquitin-proteasome pathway. SIAH-1 also binds a Bcl-2 related protein, Bag-1, thereby inhibiting cell growth. The majority of SIAH-1 is localized to the nucleus, however a small percentage is detected in the cytoplasm. This nuclear localization suggests that SIAH proteins may interact with other nuclear matrix proteins and DNA.

CHROMOSOMAL LOCATION

Genetic locus: SIAH1 (human) mapping to 16q12.1.

SOURCE

SIAH-1 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SIAH-1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-5504 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SIAH-1 (N-15) is recommended for detection of SIAH-1 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).

SIAH-1 (N-15) is also recommended for detection of SIAH-1 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for SIAH-1 siRNA (h): sc-37495, SIAH-1 siRNA (m): sc-37496, SIAH-1 shRNA Plasmid (h): sc-37495-SH, SIAH-1 shRNA Plasmid (m): sc-37496-SH, SIAH-1 shRNA (h) Lentiviral Particles: sc-37495-V and SIAH-1 shRNA (m) Lentiviral Particles: sc-37496-V.

Molecular Weight of SIAH-1: 32 kDa.

Positive Controls: Ramos cell lysate: sc-2216, HISM cell lysate: sc-2229 or K-562 whole cell lysate: sc-2203.

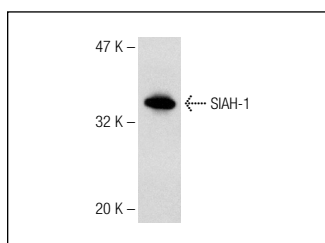
STORAGE

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

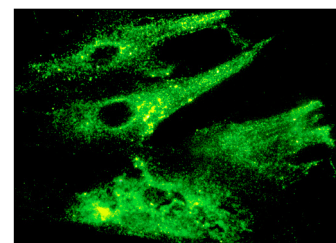
RESEARCH USE

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

DATA



SIAH-1 (N-15): sc-5505. Western blot analysis of SIAH-1 expression in HISM whole cell lysate.



SIAH-1 (N-15): sc-5505. Immunofluorescence staining of methanol-fixed HISM cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

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- Wang, D., et al. 2011. An upregulation of SIAH1 after spinal cord injury in adult rats. *J. Mol. Neurosci.* 45: 134-144.
- Nagel, C.H., et al. 2011. Herpes simplex virus immediate-early protein ICP0 is targeted by SIAH-1 for proteasomal degradation. *J. Virol.* 85: 7644-7657.
- Esposito, G., et al. 2011. Protein network study of human AF4 reveals its central role in RNA Pol II-mediated transcription and in phosphorylation-dependent regulatory mechanisms. *Biochem. J.* 438: 121-131.
- Sarkar, T.R., et al. 2012. Identification of a Src tyrosine kinase/SIAH2 E3 ubiquitin ligase pathway that regulates C/EBP δ expression and contributes to transformation of breast tumor cells. *Mol. Cell. Biol.* 32: 320-332.
- Shang, J., et al. 2012. Expressions of hypoxic stress sensor proteins after transient cerebral ischemia in mice. *J. Neurosci. Res.* 90: 648-655.

MONOS
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Try **SIAH-1/2 (4B4B6): sc-81786** or **SIAH-1/2 (8G7H12): sc-81785**, our highly recommended monoclonal alternatives to SIAH-1 (N-15).