HRASLS (D-13): sc-99930



The Power to Question

BACKGROUND

HRASLS (HRAS-like suppressor), also known as A-C1 or H-Rev107, is a 168 amino acid protein that belongs to the H-rev107 family and is expressed in skeletal muscle, testis, heart, brain and thyroid. In addition, HRASLS is highly expressed in osteosarcoma cells and has been detected at low concentrations in bone. Intracellularly, HRASLS is localized to the cytoplasm, as well as to the nuclear membrane and nucleus. HRASLS, a negative regulator of proto-oncogene Ras, is a member of the class II tumor suppressor superfamily and, when upregulated, inhibits cellular proliferation. Conversely, in non-small cell lung carcinomas (NSCLCs), the upregulation of cytoplasmic HRASLS may stimulate Ras activation and caveolin-1 expression, suggesting that the tumor suppression capabilities of HRASLS are specific to tumor cell line and intracellular localization.

REFERENCES

- Hughes, P.J. and Stanway, G. 2000. The 2A proteins of three diverse picornaviruses are related to each other and to the H-rev107 family of proteins involved in the control of cell proliferation. J. Gen. Virol. 81: 201-207.
- Ito, H., Akiyama, H., Shigeno, C. and Nakamura, T. 2001. Isolation, characterization, and chromosome mapping of a human A-C1 Ha-Ras suppressor gene (HRASLS). Cytogenet. Cell Genet. 93: 36-39.
- 3. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 606487. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Kaneda, A., Kaminishi, M., Yanagihara, K., Sugimura, T. and Ushijima, T. 2002. Identification of silencing of nine genes in human gastric cancers. Cancer Res. 62: 6645-6650.
- Sers, C., Husmann, K., Nazarenko, I., Reich, S., Wiechen, K., Zhumabayeva, B., Adhikari, P., Schröder, K., Gontarewicz, A. and Schäfer, R. 2002. The class II tumour suppressor gene H-REV107-1 is a target of interferon-regulatory factor-1 and is involved in IFNγ-induced cell death in human ovarian carcinoma cells. Oncogene 21: 2829-2839.
- Kaneda, A., Wakazono, K., Tsukamoto, T., Watanabe, N., Yagi, Y., Tatematsu, M., Kaminishi, M., Sugimura, T. and Ushijima, T. 2004. Lysyl oxidase is a tumor suppressor gene inactivated by methylation and loss of heterozygosity in human gastric cancers. Cancer Res. 64: 6410-6415.
- Nazarenko, I., Kristiansen, G., Fonfara, S., Guenther, R., Gieseler, C., Kemmner, W., Schafer, R., Petersen, I. and Sers, C. 2006. H-REV107-1 stimulates growth in non-small cell lung carcinomas via the activation of mitogenic signaling. Am. J. Pathol. 169: 1427-1439.
- Uyama, T., Morishita, J., Jin, X.H., Okamoto, Y., Tsuboi, K. and Ueda, N. 2009. The tumor suppressor gene H-Rev107 functions as a novel Ca²⁺independent cytosolic phospholipase A1/2 of the thiol hydrolase type. J. Lipid Res. 50: 685-693.

CHROMOSOMAL LOCATION

Genetic locus: HRASLS (human) mapping to 3q29; Hrasls (mouse) mapping to 16 B2.

SOURCE

HRASLS (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HRASLS of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-99930 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HRASLS (D-13) is recommended for detection of HRASLS 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).

HRASLS (D-13) is also recommended for detection of HRASLS in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for HRASLS siRNA (h): sc-78330, HRASLS siRNA (m): sc-146076, HRASLS shRNA Plasmid (h): sc-78330-SH, HRASLS shRNA Plasmid (m): sc-146076-SH, HRASLS shRNA (h) Lentiviral Particles: sc-78330-V and HRASLS shRNA (m) Lentiviral Particles: sc-146076-V.

Molecular Weight of HRASLS: 19 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.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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