SANTA CRUZ BIOTECHNOLOGY, INC.

SNAI 1 (H-130): sc-28199

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Snail family of developmental regulatory proteins is a group of widely conserved zinc-finger proteins that regulate transcription and include the mammalian proteins SLUG; SNAI 1, the human homolog of *Drosophila* SNAIL; and Smuc. SNAI 1 and SLUG are expressed in placenta and adult heart, liver and skeletal muscle. SNAI 1 and the corresponding mouse homolog, Sna, each contain three classic zinc fingers and one atypical zinc finger, while SLUG contains five zinc finger regions and a transcriptional repression domain at the amino-terminus, which enables SLUG to act as a negative regulator of gene expression. SLUG is implicated in the generation and migration of neural crest cells in human embryos and also contributes to limb bud development. In addition, SLUG also constitutes a cellular anti-apoptotic transcription factor that effectively prevents apoptosis in murine pro-B cells deprived of IL-3. The SNAIL-related gene from murine skeletal muscle cells, Smuc, is highly expressed in skeletal muscle and thymus and can, likewise, repress gene transcription. Smuc preferentially associates with CAGGTG and CACCTG E-box motifs (CANNTG) on DNA and involves the five putative DNA-binding zinc finger domains at the C-terminal region of Smuc.

CHROMOSOMAL LOCATION

Genetic locus: SNAI1 (human) mapping to 20q13.13; Snai1 (mouse) mapping to 2 H3.

SOURCE

SNAI 1 (H-130) is a rabbit polyclonal antibody raised against amino acids 21-150 of SNAI 1 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.

Available as agarose conjugate for immunoprecipitation, sc-28199 AC, 500 µg/0.25 ml agarose in 1 ml.

APPLICATIONS

SNAI 1 (H-130) is recommended for detection of SNAI 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).

SNAI 1 (H-130) is also recommended for detection of SNAI 1 in additional species, including porcine.

Suitable for use as control antibody for SNAI 1 siRNA (h): sc-38398, SNAI 1 siRNA (m): sc-38399, SNAI 1 shRNA Plasmid (h): sc-38398-SH, SNAI 1 shRNA Plasmid (m): sc-38399-SH, SNAI 1 shRNA (h) Lentiviral Particles: sc-38398-V and SNAI 1 shRNA (m) Lentiviral Particles: sc-38399-V.

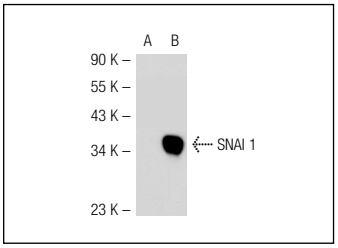
Molecular Weight of SNAI 1: 29 kDa.

Positive Controls: SNAI 1 (h): 293T Lysate: sc-113766 or Caki-1 cell lysate: sc-2224.

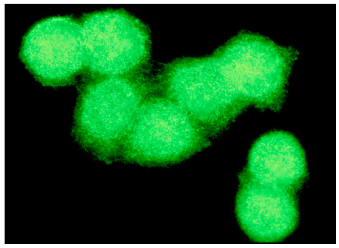
STORAGE

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

DATA



SNAI 1 (H-130): sc-28199. Western blot analysis of SNAI 1 expression in non-transfected: sc-117752 (**A**) and human SNAI 1 transfected: sc-113766 (**B**) 293T whole cell lysates.



SNAI 1 (H-130): sc-28199. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Saito, T. and Nagai, M. 2006. SYT-SSX1 and SYT-SSX2 interfere with repression of E-cadherin by snail and slug: a potential mechanism for aberrant mesenchymal to epithelial transition in human synovial sarcoma. Cancer Res. 66: 6919-6927.
2. van der Gun, B.T., et al. 2011. Transcription factors and molecular epigenetic marks underlying EpCAM overexpression in ovarian cancer. Br. J. Cancer 105: 312-319.
3. Yang, Y., et al. 2011. The Notch ligand Jagged2 promotes lung adenocarcinoma metastasis through a miR-200-dependent pathway in mice. J. Clin. Invest. 121: 1373-1385.
4. Deshiere, A., et al. 2012. Unbalanced expression of CK2 kinase subunits is sufficient to drive epithelial-to-mesenchymal transition by Snail1 induction. Oncogene. E-published.
5. Gu, T.T., et al. 2012. Cytoplasmic NANOG-positive stromal cells promote human cervical cancer progression. Am. J. Pathol. 181: 652-661.
6. Alcaraz, A., et al. 2012. Autocrine TGF-β induces epithelial to mesenchymal transition in human amniotic epithelial cells. Cell Transplant. E-published.
7. Chen, M.C., et al. 2012. Resveratrol inhibits LPS-induced epithelial-mesenchymal transition in mouse melanoma model. Innate Immun. 18: 685-693.

RESEARCH USE

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