

SNAI 1 (E-18): sc-10432

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.

REFERENCES

1. Nieto, M.A., et al. 1992. Cloning and developmental expression of *Sna*, a murine homologue of the *Drosophila* snail gene. *Development* 116: 227-237.
2. Jiang, R., et al. 1998. Genomic organization, expression and chromosomal localization of the mouse Slug (Slugh) gene. *Biochim. Biophys. Acta* 1443: 251-254.

CHROMOSOMAL LOCATION

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

SOURCE

SNAI 1 (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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.

Blocking peptide available for competition studies, sc-10432 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-10432 X, 200 µg/0.1 ml.

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.

APPLICATIONS

SNAI 1 (T-18) 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).

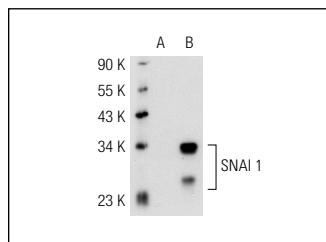
Suitable for use as control antibody for SNAI 1 siRNA (h): sc-38398, SNAI 1 siRNA (m): sc-38399, SNAI 1 shRNA Plasmid (h): sc-38398-SH, SNAI 1 shRNA Plasmid (m): sc-38399-SH, SNAI 1 shRNA (h) Lentiviral Particles: sc-38398-V and SNAI 1 shRNA (m) Lentiviral Particles: sc-38399-V.

SNAI 1 (T-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of SNAI 1: 29 kDa.

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

DATA



SNAI 1 (E-18): sc-10432. 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.

SELECT PRODUCT CITATIONS

1. Zhou, B.P., et al. 2004. Dual regulation of Snail by GSK-3 β -mediated phosphorylation in control of epithelial-mesenchymal transition. *Nat. Cell Biol.* 6: 931-940.
2. Kuphal, S., et al. 2011. GIL1-dependent transcriptional repression of CYLD in basal cell carcinoma. *Oncogene* 30: 4523-4530.
3. Volckaert, T., et al. 2011. Parabronchial smooth muscle constitutes an airway epithelial stem cell niche in the mouse lung after injury. *J. Clin. Invest.* 121: 4409-4419.
4. Rosanò, L., et al. 2011. Acquisition of chemoresistance and EMT phenotype is linked with activation of the endothelin A receptor pathway in ovarian carcinoma cells. *Clin. Cancer Res.* 17: 2350-2360.



Try **SNAI 1 (G-7): sc-271977** or **SNAI 1 (E-10): sc-393172**, our highly recommended monoclonal alternatives to SNAI 1 (E-18). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **SNAI 1 (G-7): sc-271977**.