

SNAI 1 (E-10): sc-393172

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.

SOURCE

SNAI 1 (E-10) is a mouse monoclonal antibody raised against amino acids 21-150 of SNAI 1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SNAI 1 (E-10) is available conjugated to agarose (sc-393172 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393172 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393172 PE), fluorescein (sc-393172 FITC), Alexa Fluor® 488 (sc-393172 AF488), Alexa Fluor® 546 (sc-393172 AF546), Alexa Fluor® 594 (sc-393172 AF594) or Alexa Fluor® 647 (sc-393172 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393172 AF680) or Alexa Fluor® 790 (sc-393172 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

SNAI 1 (E-10) is recommended for detection of SNAI 1 of human origin by Western Blotting (starting dilution 1:100, 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 shRNA Plasmid (h): sc-38398-SH and SNAI 1 shRNA (h) Lentiviral Particles: sc-38398-V.

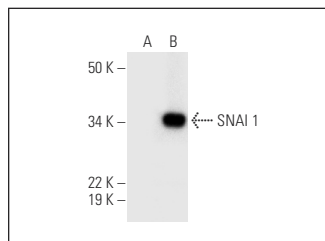
Molecular Weight of SNAI 1: 29 kDa.

Positive Controls: SNAI 1 (h): 293T Lysate: sc-113766.

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 (E-10): sc-393172. 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

- Zhang, Y., et al. 2015. Expression and clinical significance of hypoxia-inducible factor 1 α , Snail and E-cadherin in human ovarian cancer cell lines. *Mol. Med. Rep.* 12: 3393-3399.
- Zhou, H., et al. 2016. RING1 and YY1 binding protein suppresses breast cancer growth and metastasis. *Int. J. Oncol.* 49: 2442-2452.
- Zhao, X., et al. 2017. Physapubescin B inhibits tumorigenesis and circumvents taxol resistance of ovarian cancer cells through STAT3 signaling. *Oncotarget* 8: 70130-70141.
- Chen, S., et al. 2018. Conversion of epithelial-to-mesenchymal transition to mesenchymal-to-epithelial transition is mediated by oxygen concentration in pancreatic cancer cells. *Oncol. Lett.* 15: 7144-7152.
- Wang, Y., et al. 2018. Overexpression of epsin 3 enhances migration and invasion of glioma cells by inducing epithelial-mesenchymal transition. *Oncol. Rep.* 40: 3049-3059.
- Chen, X., et al. 2018. Supravillin promotes epithelial-mesenchymal transition and metastasis of hepatocellular carcinoma in hypoxia via activation of the RhoA/ROCK-ERK/p38 pathway. *J. Exp. Clin. Cancer Res.* 37: 128.
- Wang, W.Y., et al. 2019. Fibronectin promotes nasopharyngeal cancer cell motility and proliferation. *Biomed. Pharmacother.* 109: 1772-1784.
- Huang, Z., et al. 2019. Mechanisms underlying the increased chemosensitivity of bortezomib-resistant multiple myeloma by silencing nuclear transcription factor Snail1. *Oncol. Rep.* 41: 415-426.
- Dai, Y., et al. 2019. Ginsenoside Rg3 promotes the antitumor activity of gefitinib in lung cancer cell lines. *Exp. Ther. Med.* 17: 953-959.
- Dai, J., et al. 2019. Long non-coding RNA CRNDE regulates cell proliferation, migration, invasion, epithelial-mesenchymal transition and apoptosis in oral squamous cell carcinoma. *Oncol. Lett.* 17: 3330-3340.

RESEARCH USE

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