SANTA CRUZ BIOTECHNOLOGY, INC.

SLUG (C-7): sc-166902

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 in 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: SNAI2 (human) mapping to 8q11.21; Snai2 (mouse) mapping to 16 A1.

SOURCE

SLUG (C-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 70-95 within an internal region of SLUG of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-166902 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-166902 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

SLUG (C-7) is recommended for detection of SLUG of mouse, rat and 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 SLUG siRNA (h): sc-38393, SLUG siRNA (m): sc-38394, SLUG shRNA Plasmid (h): sc-38393-SH, SLUG shRNA Plasmid (m): sc-38394-SH, SLUG shRNA (h) Lentiviral Particles: sc-38393-V and SLUG shRNA (m) Lentiviral Particles: sc-38394-V.

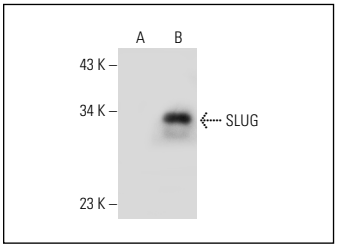
SLUG (C-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of SLUG: 30 kDa.

STORAGE

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

DATA



SLUG (C-7): sc-166902. Western blot analysis of SLUG expression in non-transfected: sc-110760 (**A**) and human SLUG transfected: sc-111905 (**B**) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Liu, Y., et al. 2012. Snail1 is involved in *de novo* cardiac fibrosis after myocardial infarction in mice. Acta Biochim. Biophys. Sin. 44: 902-910.
2. De Carolis, S., et al. 2016. Carbonic anhydrase 9 mRNA/microRNA34a interplay in hypoxic human mammospheres. J. Cell. Physiol. 231: 1534-1541.
3. Chen, S., et al. 2017. Sclareolide enhances gemcitabine-induced cell death through mediating the NICD and Gli1 pathways in gemcitabine-resistant human pancreatic cancer. Mol. Med. Rep. 15: 1461-1470.
4. 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.
5. Zhang, T., et al. 2019. TBL1XR1 is involved in c-Met-mediated tumorigenesis of human nonsmall cell lung cancer. Cancer Gene Ther. 27: 136-146.
6. Luo, A., et al. 2020. Cancer stem cell property and gene signature in bone-metastatic breast cancer cells. Int. J. Biol. Sci. 16: 2580-2594.
7. Fan, H., et al. 2020. ASB13 inhibits breast cancer metastasis through promoting SNAI2 degradation and relieving its transcriptional repression of YAP. Genes Dev. 34: 1359-1372.
8. Xia, Z., et al. 2021. Metal transporter Slc30a1 controls pharyngeal neural crest differentiation via the zinc-Snai2-Jag1 cascade. MedComm 2: 778-797.

RESEARCH USE

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

CONJUGATES

See **SLUG (A-7): sc-166476** for SLUG antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.