SANTA CRUZ BIOTECHNOLOGY, INC.

SLUG (D-19): sc-10437

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

SOURCE

SLUG (D-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SLUG 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-10437 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-10437 X, 200 µg/0.1 ml.

APPLICATIONS

SLUG (D-19) is recommended for detection of SLUG 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). SLUG (D-19) is also recommended for detection of SLUG in additional species, including equine, canine, bovine, porcine and avian.

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.

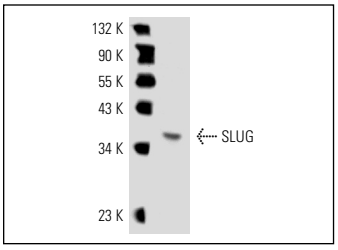
SLUG (D-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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 (D-19): sc-10437. Western blot analysis of SLUG expression in HeLa nuclear extract.

SELECT PRODUCT CITATIONS

1. Zippo, A., et al. 2004. Identification of Flk-1-target genes in vasculogenesis: Pim-1 is required for endothelial and mural cell differentiation *in vitro*. Blood 103: 4536-4544.
2. Román, A.C., et al. 2011. Dioxin receptor and SLUG transcription factors regulate the insulator activity of B1 SINE retrotransposons via an RNA polymerase switch. Genome Res. 21: 422-432.
3. Uchikado, Y., et al. 2011. Increased Slug and decreased E-cadherin expression is related to poor prognosis in patients with gastric cancer. Gastric Cancer 14: 41-49.
4. Tuncay Cagatay, S., et al. 2013. MTA-1 expression is associated with metastasis and epithelial to mesenchymal transition in colorectal cancer cells. Tumour Biol. 34: 1189-1204.
5. Guo, C., et al. 2014. Expression and localization of transcription factors SNAIL and SLUG in mouse ovaries and pre-implantation embryos. Cell Tissue Res. 358: 585-595.
6. Wu, S.M., et al. 2015. Melatonin set out to ER stress signaling thwarts epithelial mesenchymal transition and peritoneal dissemination via Calpain-mediated C/EBPb and NFkB cleavage. J. Pineal Res. 60: 142-154.
7. Asanoma, K., et al. 2015. Regulation of the Mechanism of TWIST1 Transcription by BHLHE40 and BHLHE41 in Cancer Cells. Mol. Cell. Biol. 35: 4096-4109.

RESEARCH USE

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