

SLUG (G-18): sc-10436

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 (G-18) 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-10436 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-10436 X, 200 µg/0.1 ml.

APPLICATIONS

SLUG (G-18) 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).

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.

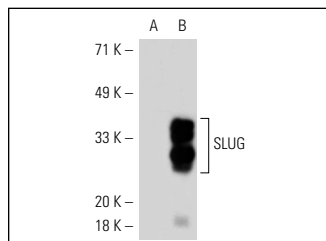
SLUG (G-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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 (G-18): sc-10436. 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

- Gupta, P.B., et al. 2005. The melanocyte differentiation program predisposes to metastasis after neoplastic transformation. *Nat. Genet.* 37: 1047-1054.
- Lambertini, E., et al. 2009. SLUG gene expression supports human osteoblast maturation. *Cell. Mol. Life Sci.* 66: 3641-3653.
- Bielez, B., et al. 2010. Epithelial Notch signaling regulates interstitial fibrosis development in the kidneys of mice and humans. *J. Clin. Invest.* 120: 4040-4054.
- Herfs, M., et al. 2010. Regulation of p63 isoforms by snail and slug transcription factors in human squamous cell carcinoma. *Am. J. Pathol.* 176: 1941-1949.
- Yang, H.W., et al. 2010. SNAI2/Slug promotes growth and invasion in human gliomas. *BMC Cancer* 10: 301.
- Torreggiani, E., et al. 2011. Role of Slug transcription factor in human mesenchymal stem cells. *J. Cell. Mol. Med.* 16: 740-751.
- Piva, R., et al. 2011. Slug contributes to the regulation of CXCL12 expression in human osteoblasts. *Exp. Cell Res.* 317: 1159-1168.
- Tang, P., et al. 2011. Slug down-regulation by RNA interference inhibits invasion growth in human esophageal squamous cell carcinoma. *BMC Gastroenterol.* 11: 60.

RESEARCH USE

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



Try **SLUG (A-7): sc-166476** or **SLUG (C-7): sc-166902**, our highly recommended monoclonal alternatives to SLUG (G-18). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **SLUG (A-7): sc-166476**.