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SLUG Antibody (N-term K9)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2053b

Product Information

Application	WB, E
Primary Accession	O43623
Other Accession	O08954, P97469, Q3MHQ4
Reactivity	Rat, Human
Predicted	Bovine, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB15389
Calculated MW	29986
Antigen Region	1-30

Additional Information

Gene ID	6591
Other Names	Zinc finger protein SNAI2, Neural crest transcription factor Slug, Protein snail homolog 2, SNAI2, SLUG, SLUGH
Target/Specificity	This SLUG antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human SLUG.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SLUG Antibody (N-term K9) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SNAI2
Synonyms	SLUG, SLUGH

Function	Transcriptional repressor that modulates both activator- dependent and basal transcription. Involved in the generation and migration of neural crest cells. Plays a role in mediating RAF1-induced transcriptional repression of the TJ protein, occludin (OCLN) and subsequent oncogenic transformation of epithelial cells (By similarity). Represses BRCA2 expression by binding to its E2-box- containing silencer and recruiting CTBP1 and HDAC1 in breast cells. In epidermal keratinocytes, binds to the E-box in ITGA3 promoter and represses its transcription. Involved in the regulation of ITGB1 and ITGB4 expression and cell adhesion and proliferation in epidermal keratinocytes. Binds to E-box2 domain of BSG and activates its expression during TGFB1-induced epithelial-mesenchymal transition (EMT) in hepatocytes. Represses E-Cadherin/CDH1 transcription via E-box elements. Involved in osteoblast maturation. Binds to RUNX2 and SOC9 promoters and may act as a positive and negative transcription regulator, respectively, in osteoblasts. Binds to CXCL12 promoter via E-box regions in mesenchymal stem cells and osteoblasts. Plays an essential role in TWIST1-induced EMT and its ability to promote invasion and metastasis.
Cellular Location	Nucleus. Cytoplasm. Note=Observed in discrete foci in interphase nuclei. These nuclear foci do not overlap with the nucleoli, the SP100 and the HP1 heterochromatin or the coiled body, suggesting SNAI2 is associated with active transcription or active splicing regions
Tissue Location	Expressed in most adult human tissues, including spleen, thymus, prostate, testis, ovary, small intestine, colon, heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. Not detected in peripheral blood leukocyte. Expressed in the dermis and in all layers of the epidermis, with high levels of expression in the basal layers (at protein level). Expressed in osteoblasts (at protein level). Expressed in mesenchymal stem cells (at protein level) Expressed in breast tumor cells (at protein level)

Background

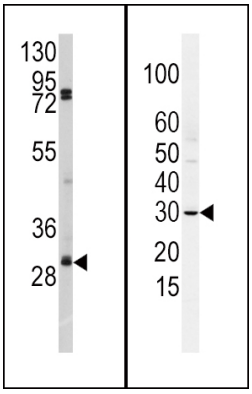
SLUG is a member of the Snail family of C2H2-type zinc finger transcription factors. This protein acts as a transcriptional repressor that binds to E-box motifs and is also likely to repress E-cadherin transcription in breast carcinoma. This protein is involved in epithelial-mesenchymal transitions and has antiapoptotic activity. Mutations in the gene encoding SLUG may be associated with sporadic cases of neural tube defects.

References

Sanchez-Martin, M., et al., Hum. Mol. Genet. 11(25):3231-3236 (2002).
Hajra, K.M., et al., Cancer Res. 62(6):1613-1618 (2002).
Hemavathy, K., et al., Mol. Cell. Biol. 20(14):5087-5095 (2000).
Inukai, T., et al., Mol. Cell 4(3):343-352 (1999).
Cohen, M.E., et al., Genomics 51(3):468-471 (1998).

Images

(LEFT)Western blot analysis of anti-SLUG Antibody (N-term K9) Pab (Cat.#AP2053b) in A2058 cell line lysates (35ug/lane). SLUG(arrow) was detected using the purified Pab.(RIGHT)Western blot analysis of SLUG Antibody (N-term K9) (Cat.#AP2053b) in HCSMC cell line lysates (35ug/lane).SLUG (arrow) was detected using the purified Pab.



Citations

- Androgen receptor inhibits epithelial-mesenchymal transition, migration, and invasion of PC-3 prostate cancer cells.
- miR-33a suppresses the nuclear translocation of β-catenin to enhance gemcitabine sensitivity in human pancreatic cancer cells.
- Hepatocyte growth factor activates Wnt pathway by transcriptional activation of LEF1 to facilitate tumor invasion.
- The postnatal accumulation of junctional E-cadherin is inversely correlated with the capacity for supporting cells to convert directly into sensory hair cells in mammalian balance organs.
- Ubiquitin ligase cullin 7 induces epithelial-mesenchymal transition in human choriocarcinoma cells.