

SNAI Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM1822a

Specification

SNAI Antibody - Product Information

Application	WB,E
Primary Accession	O95863
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgMκ

SNAI Antibody - Additional Information

Gene ID 6615

Other Names

Zinc finger protein SNAI1, Protein snail homolog 1, Protein sna, SNAI1, SNAH

Target/Specificity

This SNAI Monoclonal antibody is generated from mouse immunized with SNAI recombinant protein

Dilution

WB~~1:500

E~~Use at an assay dependent concentration.

Format

Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.

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

SNAI Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SNAI Antibody - Protein Information

Name SNAI1

Synonyms SNAH

Function Involved in induction of the epithelial to mesenchymal transition (EMT), formation and maintenance of embryonic mesoderm, growth arrest, survival and cell migration (PubMed:[10655587](#), PubMed:[15647282](#), PubMed:[20389281](#), PubMed:[20562920](#), PubMed:[21952048](#), PubMed:[25827072](#)). Binds to 3 E-boxes of the E-cadherin/CDH1 gene promoter

and to the promoters of CLDN7 and KRT8 and, in association with histone demethylase KDM1A which it recruits to the promoters, causes a decrease in dimethylated H3K4 levels and represses transcription (PubMed:[10655587](#), PubMed:[20389281](#), PubMed:[20562920](#)). The N-terminal SNAG domain competes with histone H3 for the same binding site on the histone demethylase complex formed by KDM1A and RCOR1, and thereby inhibits demethylation of histone H3 at 'Lys-4' (in vitro) (PubMed:[20389281](#), PubMed:[21300290](#), PubMed:[23721412](#)). During EMT, involved with LOXL2 in negatively regulating pericentromeric heterochromatin transcription (PubMed:[16096638](#)). SNAI1 recruits LOXL2 to pericentromeric regions to oxidize histone H3 and repress transcription which leads to release of heterochromatin component CBX5/HP1A, enabling chromatin reorganization and acquisition of mesenchymal traits (By similarity). Associates with EGR1 and SP1 to mediate tetradecanoyl phorbol acetate (TPA)-induced up-regulation of CDKN2B, possibly by binding to the CDKN2B promoter region 5'-TCACA-3 (PubMed:[20121949](#)). In addition, may also activate the CDKN2B promoter by itself (PubMed:[20121949](#)).

Cellular Location

Nucleus. Cytoplasm. Note=Once phosphorylated (probably on Ser-107, Ser-111, Ser-115 and Ser-119) it is exported from the nucleus to the cytoplasm where subsequent phosphorylation of the destruction motif and ubiquitination involving BTRC occurs.

Tissue Location

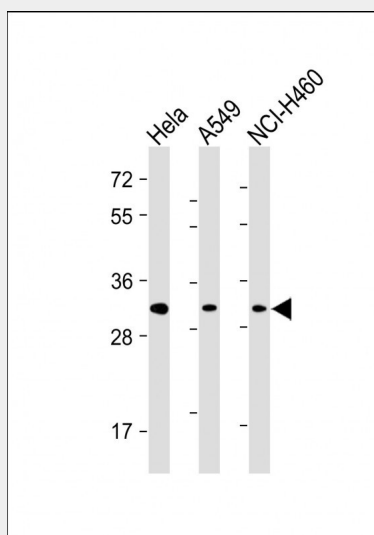
Expressed in a variety of tissues with the highest expression in kidney. Expressed in mesenchymal and epithelial cell lines.

SNAI Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SNAI Antibody - Images



All lanes : Anti-SNAI at 1:500 dilution Lane 1: Hela whole cell lysate Lane 2: A549 whole cell lysate Lane 3: NCI-H460 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgM, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 29 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

SNAI Antibody - Background

The Drosophila embryonic protein snail is a zinc finger transcriptional repressor which downregulates the expression of ectodermal genes within the mesoderm. The nuclear protein encoded by this gene is structurally similar to the Drosophila snail protein, and is also thought to be critical for mesoderm formation in the developing embryo. At least two variants of a similar processed pseudogene have been found on chromosome 2.

SNAI Antibody - References

Maternal genes and facial clefts in offspring: a comprehensive search for genetic associations in two population-based cleft studies from Scandinavia. Jugessur A, et al. PLoS One, 2010 Jul 9. PMID 20634891.

Evaluation of candidate stromal epithelial cross-talk genes identifies association between risk of serous ovarian cancer and TERT, a cancer susceptibility hot-spot. Johnatty SE, et al. PLoS Genet, 2010 Jul 8. PMID 20628624.

miR-661 expression in SNAI1-induced epithelial to mesenchymal transition contributes to breast cancer cell invasion by targeting Nectin-1 and StarD10 messengers. Vetter G, et al. Oncogene, 2010 Aug 5. PMID 20543867.

Snail transcription factor regulates neuroendocrine differentiation in LNCaP prostate cancer cells. McKeithen D, et al. Prostate, 2010 Jun 15. PMID 20166136.

Tumor expression of integrin-linked kinase (ILK) correlates with the expression of the E-cadherin repressor snail: an immunohistochemical study in ductal pancreatic adenocarcinoma. Schaeffer DF, et al. Virchows Arch, 2010 Mar. PMID 20091050.