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SNAI Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8696a

Specification

SNAI Antibody - Product Information

Application	**WB, FC, IHC-P,E**
Primary Accession	O95863
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**

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 antibody is generated from rabbits immunized with SNAI recombinant protein.

Dilution
WB~~1:1000
FC~~1:10~50
IHC-P~~1:10~50
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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 Cytomety
- Cell Culture

SNAI Antibody - Images

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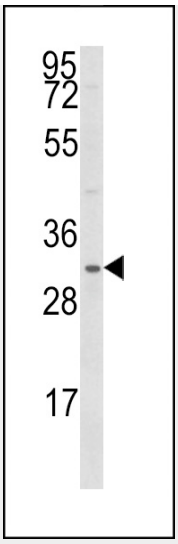
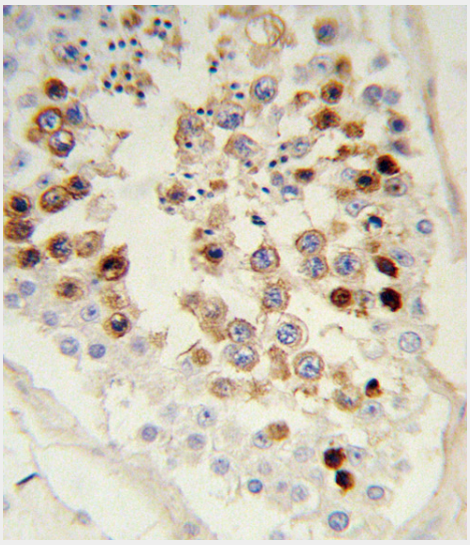


Western blot analysis of SNAI Antibody (Cat. #AP8696a) in 293 cell line lysates (35ug/lane). SNAI (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human testis tissue reacted with SNAI Antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

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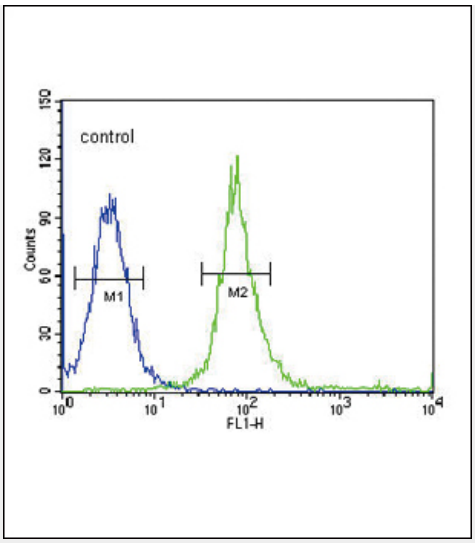

SNAI Antibody (Cat. #AP8696a) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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 is structurally similar to the Drosophila snail protein, and is also thought to be critical for mesoderm formation in the developing embryo.

SNAI Antibody - References

Beausoleil,S.A., et.al., Proc. Natl. Acad. Sci. U.S.A. 101 (33), 12130-12135 (2004)