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Snail homolog 1 / SNAI1 Antibody (N-Term)

Peptide-affinity purified goat antibody
Catalog # AF2531a

Specification

Snail homolog 1 / SNAI1 Antibody (N-Term) - Product Information

Application	**IHC, WB**
Primary Accession	O95863
Other Accession	NP_005976.2, 6615, 20613 (mouse), 116490 (rat)
Reactivity	**Human, Mouse**
Predicted	**Rat**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**29083**

Snail homolog 1 / SNAI1 Antibody (N-Term) - Additional Information

Gene ID 6615

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

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Snail homolog 1 / SNAI1 Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Snail homolog 1 / SNAI1 Antibody (N-Term) - 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:<a

href="http://www.uniprot.org/citations/20389281" target="_blank">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.

Snail homolog 1 / SNAI1 Antibody (N-Term) - 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

Snail homolog 1 / SNAI1 Antibody (N-Term) - Images

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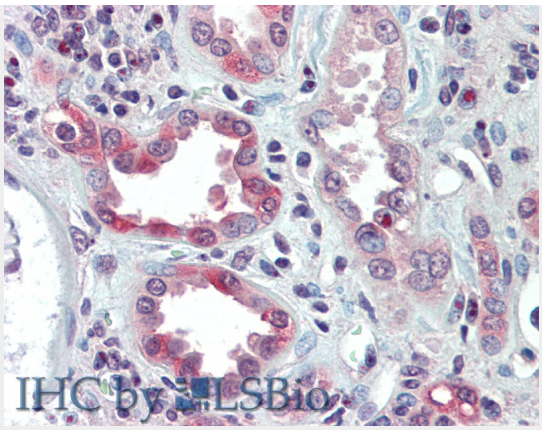
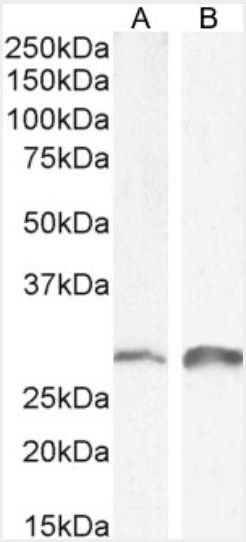


AF2531a (5 µg/ml) staining of paraffin embedded Human Kidney. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



EB07405 (0.1µg/ml) staining of Mouse (A) and Rat (B) Kidney lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.

Snail homolog 1 / SNAI1 Antibody (N-Term) - References

Snail blocks the cell cycle and confers resistance to cell death. Vega S, Morales AV, Ocana OH, Valdes F, Fabregat I, Nieto MA. Genes Dev. 2004 May 15;18(10):1131-43. PMID: 15155580