

Datasheet for 600-401-MM5S**SNAI1 Antibody****Overview**

Description:	Anti-SNAI1 (RABBIT) Antibody - 600-401-MM5S
Item No.:	600-401-MM5S
Size:	25 µL
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse
Host Species:	Rabbit

Product Details

Background:	SNAI1 (Snail Family Transcriptional Repressor 1) is a zinc finger transcriptional repressor which downregulates the expression of ectodermal genes within the mesoderm. SNAI1 is involved in the induction of the epithelial to mesenchymal transition (EMT), formation and maintenance of embryonic mesoderm, growth arrest, survival and cell migration. It 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. During EMT, SNAI1 is involved with LOXL2 in negatively regulating pericentromeric heterochromatin transcription (By similarity). 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). It 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. In addition, SNAI1 may also activate the CDKN2B promoter by itself. SNAI1 may play a role in Gastroesophageal Junction Adenocarcinoma and Fasciolopsiasis. Anti-SNAI1 Antibody is useful for researchers interested in Cytoskeleton remodeling Regulation of actin cytoskeleton by Rho GTPases and Kit receptor signaling pathways.
Synonyms:	Rabbit Anti-SNAI1 Antibody, Snail Family Transcriptional Repressor 1, Snail Family Zinc Finger 1, Zinc Finger Protein SNAI1, Protein Snail Homolog 1, Protein Sna, SNAH, Snail 1 (Drosophila Homolog), Zinc Finger Protein, Snail Homolog 1 (Drosophila), Snail 1 Zinc Finger Protein, Snail 1 Homolog, Snail Homolog 1, DJ710H13.1, SLUGH2, SNAIL1, SNAIL, SNA
Host Species:	Rabbit
Clonality:	Polyclonal

Format: IgG

Target Details

Gene Name:	SNAI1
Reactivity:	Human, Mouse
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-SNAI1 antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal portion of human SNAI1 conjugated to Keyhole Limpet Hemocyanin (KLH).
Purity/Specificity:	This affinity purified antibody is directed against human SNAI1. This product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross-reactivity with the antigen based on 100% homology with the immunizing sequence to human and mouse.
Relevant Links:	• UniProtKB - O95863 • NCBI - NP_005976.2 • GeneID - 6615

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-SNAI1 Antibody has been tested in ELISA, WB, IHC, and IF. Expect a band at ~29 in western blot using appropriate lysates. Positive control used: SNAI1 overexpressed HEK293 in WB, human lung tissue in IHC, NIH-3T3 and HeLa in IF.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000-1:50,000
IF:	15µg/mL
IHC:	1:300
WB:	1:2000
Other:	User Optimized

Formulation

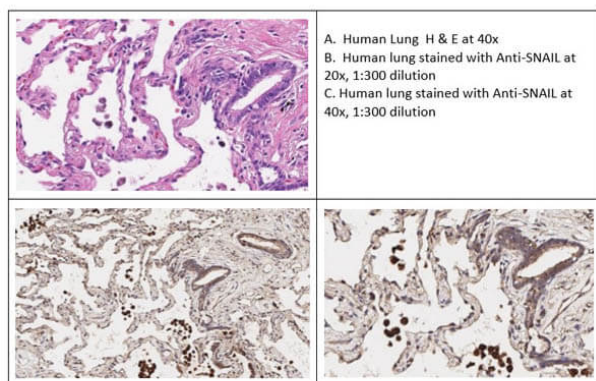
Physical State: Liquid (sterile filtered)

Concentration:	1.03 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Immunohistochemistry

Immunohistochemistry of Rabbit Anti-SNAI1 Antibody.

Tissue: Human Lung Tissue. Fixative: 10% formalin. Antigen

Retrieval: HIER using citrate buffer for 20 minutes. Primary

Antibody: Anti-SNAI1 at 1:300 for 30 minutes at RT.

Secondary Antibody: Anti-Rabbit Poly-HRP-IgG Ready-to-Use

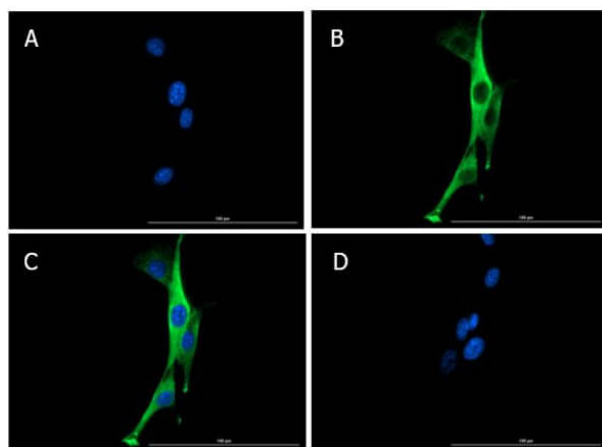
for 8 minutes at RT. Counterstain: Hematoxylin. Developing:

DAB. Staining: Shows strong nuclear and cytoplasmic

staining of pneumocytes, macrophages, and bronchial

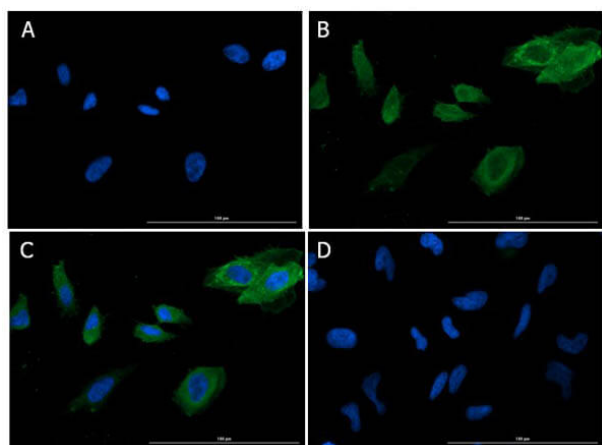
epithelium. Weaker staining is also noted in smooth muscle

and vascular endothelium.



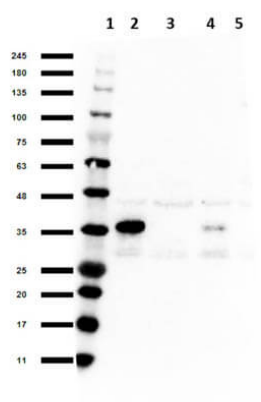
Immunofluorescence Microscopy

Immunofluorescence of Rabbit Anti-SNAI1 Antibody. Cell Line: NIH-3T3 cells. Fixative: 4% PFA. Permeabilization: 0.3% Triton X-100. Primary Antibody: Anti-SNAI1 at 15µg/mL overnight at 2-8°C. Secondary Antibody: Donkey Anti-Rabbit IgG DyLight™488 (p/n 611-741-127) at 5µL/mL for 1hr at RT. Nuclear Counterstain: DAPI. Staining: (A). DAPI. (B). SNAI1 + DyLight™488 secondary. (C). Merge A+B. (D). secondary only. Localization expected: nucleus, cytosol.



Immunofluorescence Microscopy

Immunofluorescence of Rabbit Anti-SNAI1 Antibody. Cell Line: HeLa cells. Fixative: 4% PFA. Permeabilization: 0.3% Triton X-100. Primary Antibody: Anti-SNAI1 at 15µg/mL overnight at 2-8°C. Secondary Antibody: Donkey Anti-Rabbit IgG DyLight™488 (p/n 611-741-127) at 5µL/mL for 1hr at RT. Nuclear Counterstain: DAPI. Staining: (A). DAPI. (B). SNAI1 + DyLight™488 secondary. (C). Merge A+B. (D). secondary only. Localization expected: nucleus, cytosol.



Western Blot

Western Blot of Rabbit Anti-SNAI1 Antibody. Lane 1: Molecular Weight Prestained Markers (p/n MB-210-0500). Lane 2: Snail overexpressed HEK293 lysate [10µg]. Lane 3: HEK293 empty vector lysate [10µg]. Lane 4: Slug overexpressed HEK293 lysate [10µg]. Lane 5: HEK293 empty vector lysate [10µg]. Primary Antibody: Anti-SNAI1 at 1:1000 overnight at 2-8°C. Secondary Antibody: Goat Anti-Rabbit IgG HRP Antibody (p/n 611-103-122) at 1:70,000 for 30 minutes at RT. Buffer: BlockOut Buffer (p/n MB-073). Exposure time: 9 sec. Predicted MW: ~23, 30, 35, 48kDa overexpressing protein. Observed MW: ~35kDa. Antibody shows a stronger reactivity/preference to SNAI1 protein vs. SLUG.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.