Datasheet for ABIN2854294

anti-SNAIL antibody

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Overview

Quantity:	100 µL
Target:	SNAIL (SNAI1)
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SNAIL antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunocytochemistry (ICC)

Product Details

Immunogen:	Recombinant protein encompassing a sequence within the center region of human SNAI1. The exact sequence is proprietary.
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Characteristics:	Rabbit Polyclonal antibody to SNAI1 (snail family zinc finger 1) SNAI1 antibody
Purification:	Purified by antigen-affinity chromatography.

Target Details

Target:	SNAIL (SNAI1)
Alternative Name:	snail family transcriptional repressor 1 (SNAI1 Products)

Target Details

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. Cellular Localization: Nucleus
Molecular Weight:	29 kDa
Gene ID:	6615
UniProt:	O95863
Pathways:	Negative Regulation of intrinsic apoptotic Signaling

Application Details

Application Notes:	WB: 1:500-1:3000. ICC/IF: 1:100-1:1000. Optimal dilutions/concentrations should be determined by the researcher. Not tested in other applications.
Comment:	Positive Control: U87-MG , SK-N-SH , IMR32 , SK-N-AS , HeLa (starvation for 16 hr 20 ng/ml TGF-beta and 300 ng/ml EGF treatment for 30 min) , SNAI1-transfected 293T Validation: Comparison, Orthogonal, Overexpression
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1.54 mg/mL
Buffer:	1XPBS (pH 7), 20 % Glycerol, 0.025 % ProClin 300
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store as concentrated solution. Centrifuge briefly prior to opening vial. For short-term storage (1-2 weeks), store at 4°C. For long-term storage, aliquot and store at -20°C or below. Avoid multiple freeze-thaw cycles.

Publications

Product cited in:

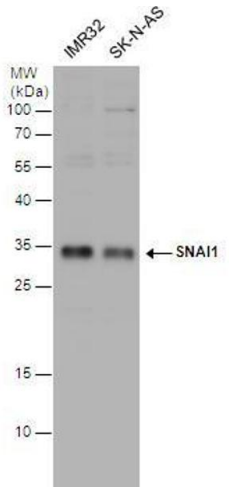
Chung, Lee, Hu, Chou, Lin, Shih: "NKX6.1 Represses Tumorigenesis, Metastasis, and Chemoresistance in Colorectal Cancer." in: **International journal of molecular sciences**, Vol. 21, Issue 14, (2020) (PubMed).

Roth, Jayaratna, Sundi, Cheng, Melquist, Choi, Porten, Nitti, Navai, Wszolek, Guo, Czerniak, McConkey, Dinney: "Employing an orthotopic model to study the role of epithelial-mesenchymal transition in bladder cancer metastasis." in: **Oncotarget**, Vol. 8, Issue 21, pp. 34205-34222, (2018) (PubMed).

Li, Yu, Huang, Su, Hsiao, Chang, Yu, Lin: "NKX6.1 functions as a metastatic suppressor through epigenetic regulation of the epithelial-mesenchymal transition." in: **Oncogene**, Vol. 35, Issue 17, pp. 2266-78, (2017) (PubMed).

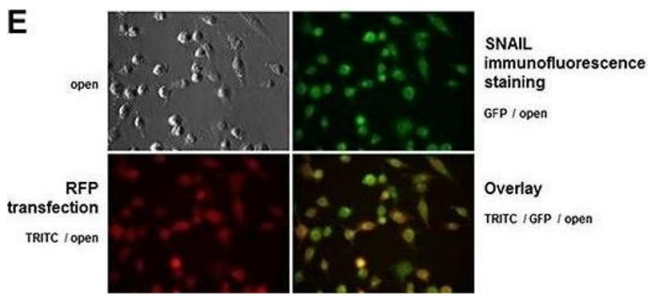
Liu, Weng, Lin, Tang, Chen, Liang, Ku, Lin: "Aqueous extract of Polygonum bistorta modulates proteostasis by ROS-induced ER stress in human hepatoma cells." in: **Scientific reports**, Vol. 7, pp. 41437, (2017) (PubMed).

Images



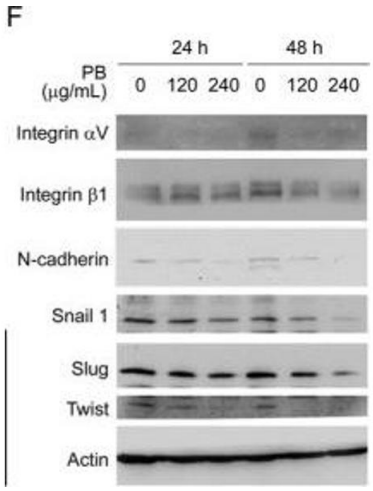
Western Blotting

Image 1. WB Image SNAI1 antibody detects SNAI1 protein by western blot analysis. Various whole cell extracts (30 µg) were separated by 12% SDS-PAGE, and the membrane was blotted with SNAI1 antibody , diluted at 1:1000.



Immunofluorescence (Cultured Cells)

Image 2. Expression of ""epithelial"" and ""mesenchymal"" markers in vitro and in vivo(A) Comparison of ""epithelial"" markers (left panel) and ""mesenchymal"" markers (right panel) for UM-UC3 in vitro (2D culture) and in vivo after the 3rd generation of recycling. Gene expression by the primary tumor, CTCs, lymph node (LN) metastases, and distant metastases were characterized by qRT-PCR. (B) Relative mRNA expression of SNAIL in UM-UC3 following successive orthotopic tumor recycling. CTCs demonstrate increasing SNAIL expression with successive generations. (C) Comparison of ""epithelial"" markers (left panel) and ""mesenchymal"" markers (right panel) for UM-UC13 in vitro (2D culture) and in vivo after the 3rd generation of recycling using qRT-PCR. (D) Immunoblots for SNAIL and E-Cadherin of 2D culture cells, primary tumors, and metastases. (E) Cell suspension staining (GFP) for SNAIL in CTCs originating from mice with UM-UC3 orthotopic tumors which are luc-RFP labelled. - figure provided by CiteAb. Source: PMID28134285



Western Blotting

Image 3. PB downregulates several proteins related to cell cycle progression, morphology, cell-cell adhesion and cell migration.Hep3B cells were treated for 24h (A), 6h (C), and 24h and 48h (F) with the indicated concentrations of PB. Levels of protein expression were analysed by Western blot using indicated antibodies. Images were cropped from different blots run under the same experimental conditions in each panel. The original blots were attached as Supplementary Figure 6. (B) Hep3B cells were treated for 8 or 24h with 120 or 240 µg/mL PB. Cell cycle distribution was evaluated using propidium iodide (PI) staining. (D,E) Hep3B cells were treated for 6h with PB (120 µg/mL), paclitaxel (PTX) (2.0µM). Localisation of β-tubulin, F-actin and ezrin

was imaged using a confocal microscope (Leica SP8). Differential expression of indicated molecules was compared. *P<0.05, **P<0.01, ***P<0.001, control versus PB- or drug-treated cells. (G) Hep3B cells were treated for 1h with indicated concentration of PB and adhered to the bottom of the plates. Adhesive cells were photographed and counted. (H) Hep3B cells were treated for 24h with PB (60-240 μg/mL), the corresponding concentration of polyphenols GA, DHBA, and CA, along or in combination, or water control. Migration analysis was performed using a Boyden chamber. Migrated cells were measured as a percentage of cells that migrated to the lower surface of the chamber. Data are presented from three independent experiments. **P<0.01, ***P<0.001, control versus PB- or drug-treated cells. - figure provided by CiteAb. Source: PMID28134285