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Product datasheet

Anti-SNAIL antibody [Sn9H2] ab31787

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Overview

Product name	Anti-SNAIL antibody [Sn9H2]
Description	Rat monoclonal [Sn9H2] to SNAIL
Host species	Rat
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Human
Immunogen	Fusion protein corresponding to Human SNAIL.
Positive control	This antibody gave a positive signal when tested against the SNAIL recombinant protein.
General notes	This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact **orders@abcam.com**. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 6.97% L-Arginine
Purity	Protein G purified
Clonality	Monoclonal
Clone number	Sn9H2
Myeloma	P3x63-Ag8.653
Isotype	IgG2a

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab31787 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 10 µg/ml. Detects a band of approximately 29 kDa (predicted molecular weight: 29 kDa).

Target

Function Involved in induction of the epithelial to mesenchymal transition (EMT), formation and maintenance of embryonic mesoderm, growth arrest, survival and cell migration. 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. 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, may also activate the CDKN2B promoter by itself.

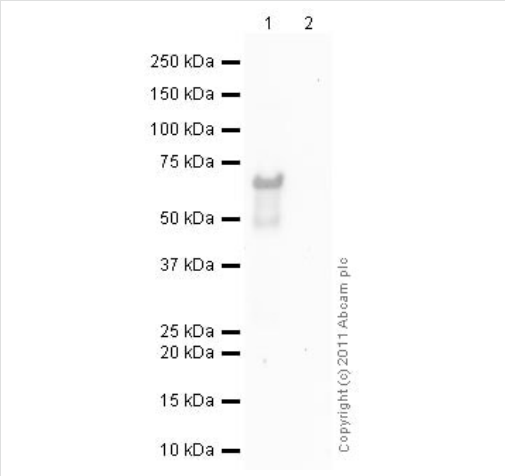
Tissue specificity Expressed in a variety of tissues with the highest expression in kidney. Expressed in mesenchymal and epithelial cell lines.

Sequence similarities Belongs to the snail C2H2-type zinc-finger protein family.
Contains 4 C2H2-type zinc fingers.

Post-translational modifications Phosphorylated by GSK3B. Once phosphorylated, it becomes a target for BTRC ubiquitination. Phosphorylation by CSNK1E, probably at Ser-104, provides the priming site for the subsequent phosphorylation by GSK3B, probably at Ser-100 and Ser-96. Phosphorylation by PAK1 may modulate its transcriptional activity by promoting increased accumulation in the nucleus. Phosphorylation at Ser-11 and Ser-92 positively regulates its functions in induction of EMT and cell survival, respectively. Phosphorylation by LATS2, upon mitotic stress, oncogenic stress or Hippo pathway activation, occurs in the nucleus and promotes nuclear retention and stabilization of total cellular protein level.
Ubiquitinated on Lys-98, Lys-137 and Lys-146 by FBXL14 and BTRC leading to degradation. BTRC-triggered ubiquitination requires previous GSK3B-mediated SNAI1 phosphorylation. Ubiquitination induced upon interaction with NOTCH1 or TP53/p53 is mediated by MDM2.
O-GlcNAcylation at Ser-112 is enhanced in hyperglycaemic conditions, it opposes phosphorylation by GSK3B, and stabilizes the protein.
ADP-ribosylation by PARP1 increases protein half-life and may be involved in TGFB-induced SNAI1 up-regulation.

Cellular localization Nucleus. Cytoplasm. 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.

Images



Western blot - Anti-SNAIL antibody [Sn9H2] (ab31787)

All lanes : Anti-SNAIL antibody [Sn9H2] (ab31787) at 10 µg/ml

Lane 1 : SNAIL (SNAI1) Human Recombinant Protein
Lane 2 : SLUG (SNAI2) Human Recombinant Protein

Lysates/proteins at 0.1 µg per lane.

Secondary
All lanes : Peroxidase Conjugated AffiniPure Rabbit Anti-Rat IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 29 kDa
Observed band size: 68 kDa

Exposure time: 16 minutes

Ab31787 recognizes the tagged recombinant SNAIL protein which has an expected molecular weight of 68 kDa.

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