

Product datasheet

Anti-SNAIL antibody [EPR21043] ab216347

Recombinant RabMAb

[23 References](#) [4 Images](#)

Overview

Product name	Anti-SNAIL antibody [EPR21043]
Description	Rabbit monoclonal [EPR21043] to SNAIL
Host species	Rabbit
Tested applications	Suitable for: WB, IP
Species reactivity	Reacts with: Human
Immunogen	Recombinant full length protein corresponding to Human SNAIL aa 1 to the C-terminus. Database link: O95863
Positive control	WB: His-tagged human SNAIL recombinant protein (aa1-264); HeLa and HCT 116 whole cell lysates. IP: HeLa whole cell lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise[™] guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.</p> <p>Applications & species from publications and Abreviews that have not been tested in our own</p>

labs or in those of our suppliers are not covered by the Abpromise guarantee.

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, as well as 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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR21043
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab216347** 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		1/1000. Detects a band of approximately 29 kDa (predicted molecular weight: 29 kDa).
IP		1/30.

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.

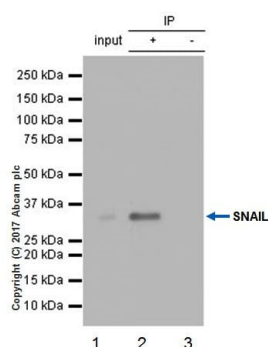
Ubiquitinated on Lys-98, Lys-137 and Lys-146 by FBXL14 and BTRC leading to degradation. BTRC-triggered ubiquitination requires previous GSK3B-mediated SNAI1 phosphorylation. Ubiquitination induced upon interaction with NOTCH1 or TP53/p53 is mediated by MDM2. O-GlcNAcylation at Ser-112 is enhanced in hyperglycaemic conditions, it opposes phosphorylation by GSK3B, and stabilizes the protein.

ADP-ribosylation by PARP1 increases protein half-life and may be involved in TGF β -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



Immunoprecipitation - Anti-SNAI1 antibody
[EPR21043] (ab216347)

SNAIL was immunoprecipitated from 0.35 mg of HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate with ab216347 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab216347 at 1/500 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10,000 dilution.

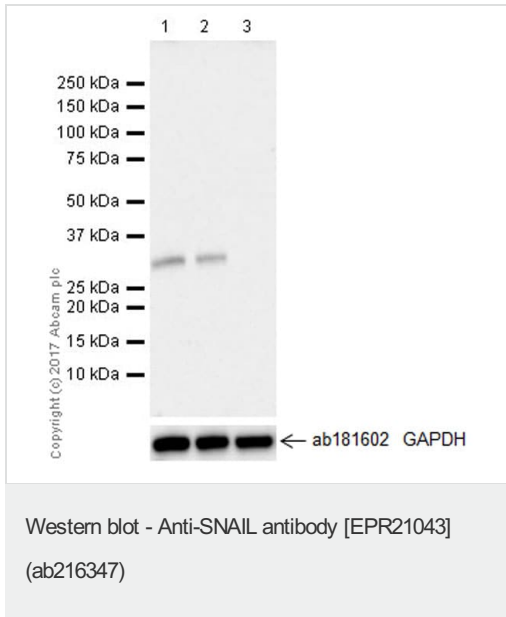
Lane 1: HeLa whole cell lysate 10 μ g (Input).

Lane 2: ab216347 IP in HeLa whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab216347 in HeLa whole cell lysate.

Exposure time: 10 seconds.

Blocking and dilution buffer and concentration: 5% NFD/MTBST.



All lanes : Anti-SNAIL antibody [EPR21043] (ab216347) at 1/1000 dilution

Lane 1 : HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lane 2 : HCT 116 (Human colorectal carcinoma cell line) whole cell lysate

Lane 3 : MCF7 (Human breast adenocarcinoma cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Developed using the ECL technique.

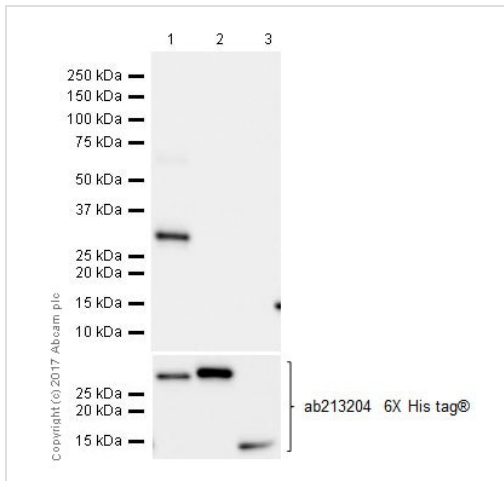
Predicted band size: 29 kDa

Observed band size: 29 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDm/TBST.

SNAIL expression is not detectable in MCF7 cells, which is consistent with what has been described in the literature (PMID: 10655587 and 22028892).



Western blot - Anti-SNAIL antibody [EPR21043] (ab216347)

All lanes : Anti-SNAIL antibody [EPR21043] (ab216347) at 1/10000 dilution

Lane 1 : His-tagged human SNAIL recombinant protein (aa1-264)

Lane 2 : His-tagged human Slug recombinant protein (aa21-268)

Lane 3 : His-tagged human Slug recombinant protein (aa1-110)

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Developed using the ECL technique.




Predicted band size: 29 kDa

Observed band size: 29 kDa

Exposure time: 5 seconds

Blocking/Dilution buffer: 5% NFD/MTBST.

Why choose a recombinant antibody?

 Research with confidence Consistent and reproducible results	 Long-term and scalable supply Recombinant technology
 Success from the first experiment Confirmed specificity	 Ethical standards compliant Animal-free production

Anti-SNAIL antibody [EPR21043] (ab216347)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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