

Rabbit anti-Human, Mouse SNAI1 Polyclonal Antibody | anti-SNAI1 antibody

Phospho-SNAI1 (Ser246) Antibody

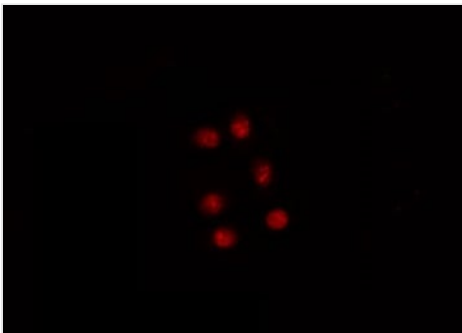
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321442	Rabbit	Human, Mouse	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

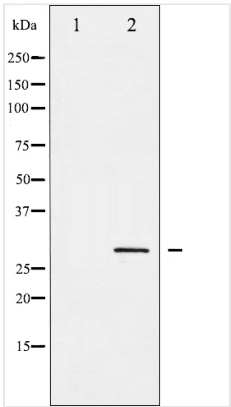
SNAI1; Polyclonal Antibody; Phospho-SNAI1 (Ser246) Antibody; dJ710H13.1; Protein sna; Protein snail homolog 1; Protein snail homolog; SLUGH2; SNA; Sna protein; SNAH; SNAI; snai1; SNAI1_HUMAN; Snail 1 homolog; Snail 1 zinc finger protein; SNAIL; Snail homolog 1 (Drosophila); Drosophila; homolog of; 1; SNAI1; Zinc finger protein SNAI1; anti-SNAI1 antibody

PRODUCT SPECIFICATIONS

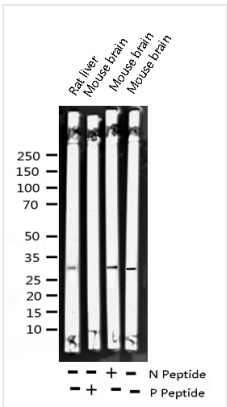
Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-SNAI1 (Ser246) antibody detects endogenous levels of SNAI1 only when phosphorylated at Serine 246
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	264
Applicable Applications for anti-SNAI1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human SNAI1 around the phosphorylation site of Serine 246
Subcellular Location	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.
Tissue Specificity	Expressed in a variety of tissues with the highest expression in kidney. Expressed in mesenchymal and epithelial cell lines.
Predicted Cross Reactivity	Pig, Bovine, Horse, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (86%), Bovine (86%), Horse (100%), Rabbit (100%), Dog (86%), Chicken (86%), Xenopus (86%)
Conjugation	Unconjugated
Epitope	Phospho Ser246
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IF (Immunofluorescence)
AAA321442 staining HT29 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of SNAI1 phosphorylation expression in HT29 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



WB (Western Blot)
Western blot analysis of Phospho-SNAI1 (Ser246) expression in various lysates

ADDITIONAL INFORMATION

Related Product Information for anti-SNAI1 antibody	Description: This protein has many roles during postimplantation development. It is involved in embryonic mesoderm formation and its maintenance and may also be involved in chondrogenesis and in epithelial-mesenchymal inductive interactions. 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. During EMT, 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). 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. Subunit Structure: Interacts with FBXL14 and GSK3B. Interacts with BTRC; interaction occurs when it is phosphorylated on the destruction motif. Interacts (via SNAG domain) with WTIP (via LIM domains) (By similarity). Interacts (via SNAG domain) with LIMD1 (via LIM domains), and AJUBA (via LIM domains). Interacts with LOXL2 and LOXL3. Interacts (via N-terminal region) with CSNK2A1. Interacts with EGR1 upon TPA induction. Interacts (via N-terminal region) with LATS2; the interaction is dependent on LATS2 kinase activity but independent of SNAI1 Thr-203 phosphorylation. Interacts (via zinc fingers) with KPNB1 and TNPO1; the interactions mediate nuclear import. Interacts (via zinc fingers) with KPNA1; the interaction disrupts the transport complex with KPNB1 and prevents nuclear import increasing SNAI1 degradation in the cytoplasm. Interacts (via zinc fingers) with KPNA2; the interaction, in combination with KPNB1, mediates nuclear import. Interacts with KPNA4; this interaction mediates nuclear import. May interact (via zinc fingers) with IPO7. Interacts (via zinc fingers) with PARP1; the interaction requires SNAI1 to be poly-ADP-ribosylated and non-phosphorylated (active) by GSK3B. Interacts (via SNAG domain) with KDM1A; the interaction is necessary for the down-regulation of dimethylated H3K4 mark and promoter activity of E-cadherin/CDH1, CDN7 and KRT8. Interacts with TP53/p53 and (via zinc fingers) with NOTCH1 (via intracellular domain); the interactions induce SNAI1 degradation via MDM2-mediated ubiquitination and inhibit SNAI1-induced cell invasion. Interacts with MDM2; the interaction promotes SNAI1 ubiquitination. Interacts (via zinc fingers) with CSNK1E. Interacts with PAK1. 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. Similarity: Belongs to the snail C2H2-type zinc-finger protein family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	18765741
NCBI GeneID	6615
NCBI Accession #	NP_005976.2
NCBI GenBank Nucleotide #	NM_005985.3
UniProt Accession #	O95863; Q9P113; Q9UBP7; Q9UHH7; B2R842
Molecular Weight	Observed: 29 kDa Predicted: 30 kDa
NCBI Official Full Name	zinc finger protein SNAI1
NCBI Official Synonym Full Names	snail family transcriptional repressor 1
NCBI Official Symbol	SNAI1

NCBI Official Synonym Symbols	SNA; SNAH; SNAIL; SLUGH2; SNAIL1; dJ710H13.1
NCBI Protein Information	zinc finger protein SNAI1
UniProt Protein Name	Zinc finger protein SNAI1
UniProt Gene Name	SNAI1
UniProt Synonym Gene Names	SNAH; Protein sna

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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