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Anti-SNAIL Picoband Antibody

Catalog # ABO12090

Specification

Anti-SNAIL Picoband Antibody - Product Information

Application	**WB**
Primary Accession	O95863
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Zinc finger protein SNAI1(SNAI1) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-SNAIL Picoband Antibody - Additional Information

Gene ID 6615

Other Names
Zinc finger protein SNAI1, Protein snail homolog 1, Protein sna, SNAI1, SNAH

Calculated MW
29083 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular 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.

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

Protein Name
Zinc finger protein SNAI1

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence in the middle region of human SNAIL(127-155aa AAFPGLGQVPKQLAQLSEAKDLQARKAFN), different from the related mouse sequence by six amino

acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Sequence Similarities
Belongs to the snail C2H2-type zinc-finger protein family.

Anti-SNAIL Picoband Antibody - Protein Information

Name SNAI1

Synonyms SNAH

Function
Involved in induction of the epithelial to mesenchymal transition (EMT), formation and maintenance of embryonic mesoderm, growth arrest, survival and cell migration (PubMed:10655587, PubMed:15647282, PubMed:20389281, PubMed:20562920, PubMed:21952048, PubMed:25827072). 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 (PubMed:10655587, PubMed:20389281, PubMed:20562920). The N-terminal SNAG domain competes with histone H3 for the same binding site on the histone demethylase complex formed by KDM1A and RCOR1, and thereby inhibits demethylation of histone H3 at 'Lys-4' (in vitro) (PubMed:20389281, PubMed:21300290, PubMed:23721412). During EMT, involved with LOXL2 in negatively regulating pericentromeric heterochromatin transcription (PubMed:16096638). 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 (PubMed:20121949). In addition, may also activate the CDKN2B promoter by itself (PubMed:20121949).

Cellular Location

Nucleus. Cytoplasm. Note=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.

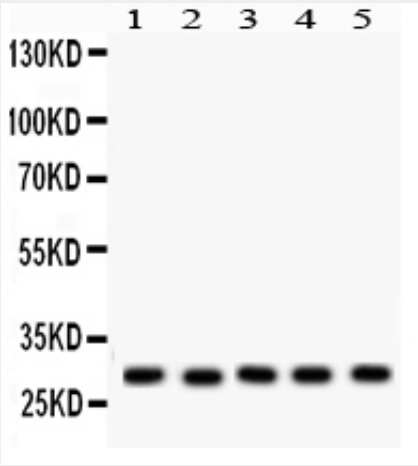
Tissue Location
Expressed in a variety of tissues with the highest expression in kidney. Expressed in mesenchymal and epithelial cell lines.

Anti-SNAIL Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-SNAIL Picoband Antibody - Images



Anti- SNAILPicoband antibody, ABO12090, Western blottingAll lanes: Anti SNAIL (ABO12090) at 0.5ug/mlLane 1: Rat Cardiac Muscle Tissue Lysate at 50ugLane 2: Rat Skeletal Muscle Tissue Lysate at 50ugLane 3: Mouse Liver Tissue Lysate at 50ugLane 4: MCF-7 Whole Cell Lysate at 40ugLane 5: Human Placenta Tissue Lysate at 50ugPredicted bind size: 29KDObserved bind size: 29KD

Anti-SNAIL Picoband Antibody - Background

The Drosophila embryonic protein SNAI1, commonly known as Snail, is a zinc finger transcriptional repressor which downregulates the expression of ectodermal genes within the mesoderm. And it is located in 16q24.3. 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. It is studied that SNAIL gene may show a role in recurrence of breast cancer by downregulating E-cadherin and inducing anepithelial to mesenchymal transition.