## PRODUCT INFORMATION

**Product name：** SNAI1 antibody

**Product type：** Primary antibodies

**Description：** Rabbit polyclonal to SNAI2

**Immunogen：** 3 synthetic peptides (human) conjugated to KLH

**Reacts with：** Human, Mouse

**Tested applications：** ELISA, WB & IF

## GENE INFORMATION

**Gene Symbol：** SNAI2

**Gene Name：** snail family zinc finger 2

**Ensembl ID：** ENSG0000019549

**Entrez GeneID：** 6591

**GenBank Accession number：** U97060

**Swiss-Prot：** O43623

**Molecular weight of SNAI2：** 30kDa

**Function：** Transcriptional repressor that modulates both activator-dependent and basal transcription. Involved in the generation and migration of neural crest cells. Plays a role in mediating RAF1-induced transcriptional repression of the TJ protein, occludin (OCLN) and subsequent oncogenic transformation of epithelial cells By similarity. Represses BRCA2 expression by binding to its E2-box-containing silencer and recruiting CTBP1 and HDAC1 in breast cells. In epidermal keratinocytes, binds to the E-box in ITGA3 promoter and represses its transcription. Involved in the regulation of ITGB1 and ITGB4 expression and cell adhesion and proliferation in epidermal keratinocytes. Binds to E-box2 domain of BSG and activates its expression during TGFB1-induced epithelial-mesenchymal transition (EMT) in hepatocytes. Represses E-Cadherin/CDH1 transcription via E-box elements. Involved in osteoblast maturation. Binds to RUNX2 and SOC9 promoters and may act as a positive and negative transcription regulator, respectively, in osteoblasts. Binds to CXCL12 promoter via E-box regions in mesenchymal stem cells and osteoblasts. Plays an essential role in TWIST1-induced EMT and its ability to promote invasion and metastasis.

**Expected subcellular localization：** Nucleus. Cytoplasm. Note: Observed in discrete foci in interphase nuclei. These nuclear foci do not overlap with the nucleoli, the SP100 and the HP1 heterochromatin or the coiled body, suggesting SNAI2 is associated with active transcription or active splicing regions.

**Expected tissue specificity：** Expressed in most adult human tissues, including spleen, thymus, prostate, testis, ovary, small intestine, colon, heart, brain, placenta, lung, liver,

**skeletal muscle, kidney and pancreas. Not detected in peripheral blood leukocyte. Expressed in the dermis and in all layers of the epidermis, with high levels of expression in the basal layers (at protein level). Expressed in osteoblasts (at protein level). Expressed in mesenchymal stem cells (at protein level). Expressed in breast tumor cells (at protein level).**

**Summary : This gene encodes a member of the Snail family of C2H2-type zinc finger transcription factors. The encoded protein acts as a transcriptional repressor that binds to E-box motifs and is also likely to repress E-cadherin transcription in breast carcinoma. This protein is involved in epithelial-mesenchymal transitions and has antiapoptotic activity. Mutations in this gene may be associated with sporatic cases of neural tube defects. [provided by RefSeq]**

## APPLICATION NOTE

**Recommended dilution：**

- **ELISA: Antibody specificity was verified by direct ELISA against the 3 immunogen peptides. A minimum titer of 1/46000 is determined for one of the three peptides. Appropriate specificity controls were run.**
- **WB: 1/500.**
- **IF: 1/250.**

**Optimal dilutions/concentration should be determined by the end user.**

**Raised in： Rabbit**

**Clonality： Polyclonal**

**Isotype： IgG**

**Purity： Crude serum, final bleed**

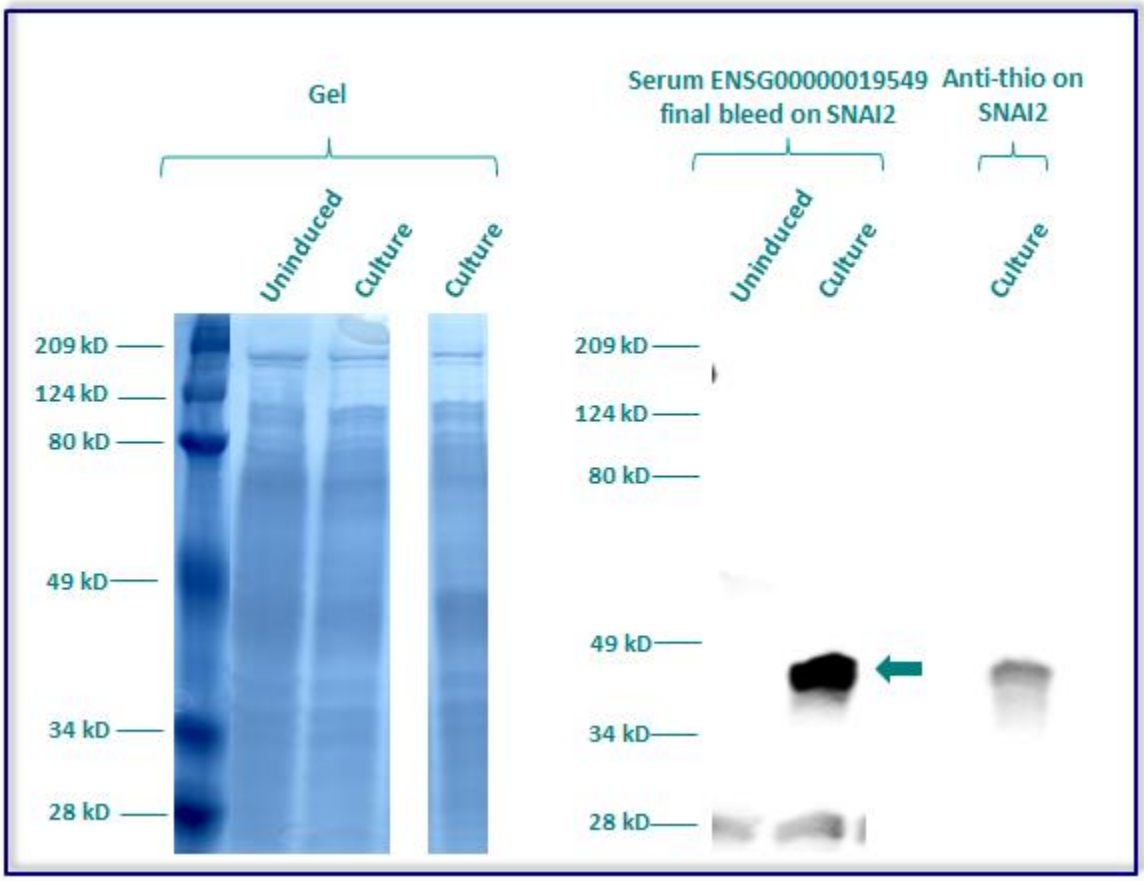
**Storage buffer： Crude serum**

**Form： Liquid**

**Storage instruction： Store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.**

## WESTERN BLOT ON CELL LYSATE

**The serum ENSG00000019549 has been tested at 1/500 on uninduced (negative control) and induced culture of E.coli (one shot Top10 competent cells).**
**An anti-thio has been tested at 1/5000 on induced culture of E.coli (one shot Top10 competent cells) as a positive control.**
**Plasmid name : pBAD-DEST49.**
**Molecular weight of SNAI2 : 44kDa (30kDa + another 14kDa for the tag).**




**NOTE: THE SERUM DOES NOT DETECT THE PROTEIN IN THE FOLLOWING CELL LYSATES (HeLa, SAOS 2, SH-SY5Y, SKIN 3.44 & 293T17) AT A DILUTION OF 1:250.**

**Gel concentration: 10%**
**Blocking: in 5% non-fat milk-PBST solution**
**1st Antibody: The antibodies are diluted in blocking buffer.**

- **Dilute the serum ENSG00000019549 at 1:500**
- **Dilute the Anti Thio at 1:5000**

**60 minutes of incubation**
**2nd Antibody: The antibody is diluted in blocking buffer.**

- **Dilute the anti-Rabbit IgG HRP conjugated at 1/10000**

**60 minutes of incubation**

## IMMUNOFLUORESCENCE ANALYSIS

**Immunofluorescence analysis of Zinc finger protein SNAI2 (SNAI2) expression in 5 cells lines (HELA, 293T/17, Capan-2, SAOS-2, SH-SY5Y). The crude serum ENSG00000019549 has been tested at 1/250.**

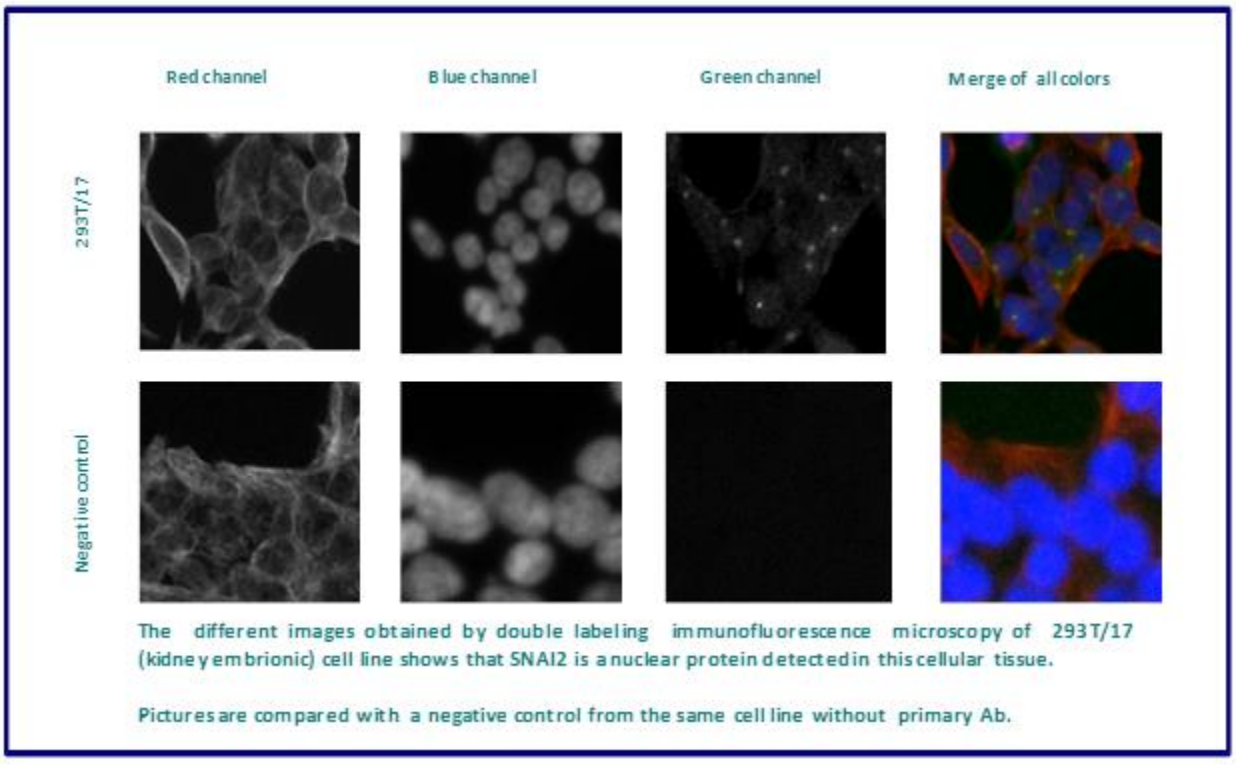
**Red staining： cytoskeleton (microtubules/α-tubuline)**

**Blue staining ：nucleus (Hoechst)**

**Green staining： anti- SNAI2 antibody**

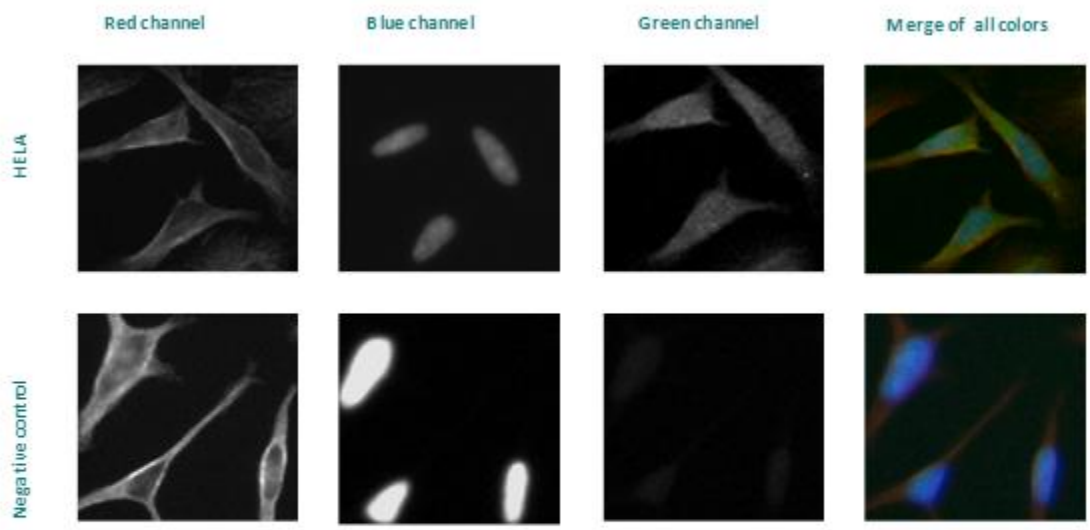
**Expected subcellular location： Nucleus**

**Expected tissue specificity：Expressed in placenta and adult heart, pancreas, liver, kidney and skeletal muscle**




The different images obtained by double labeling immunofluorescence microscopy of 293T/17 (kidney embrionic) cell line shows that SNAI2 is a nuclear protein detected in this cellular tissue.

Pictures are compared with a negative control from the same cell line without primary Ab.




The different images obtained by double labeling immunofluorescence microscopy of HELA (cervix adenocarcinoma) cell line shows that SNAI2 is a nuclear and cytoplasmic protein detected in this cellular tissue.

Pictures are compared with a negative control from the same cell line without primary Ab.

Remaining cell lines tested gave a positive result with a nuclear and cytoplasmic distribution.