**Product datasheet**

**Anti-SNAIL + SLUG antibody ab180714**

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**Overview**

**Product name**  Anti-SNAIL + SLUG antibody  
**Description**  Rabbit polyclonal to SNAIL + SLUG  
**Host species**  Rabbit  
**Tested applications**  Suitable for: IHC-Fr, WB, ICC/IF, IHC-P  
**Species reactivity**  Reacts with: Mouse, Rat, Human  
**Immunogen**  Synthetic peptide within Human SNAIL+SLUG aa 236-264. The exact sequence is proprietary. Database link: O95863  
**Positive control**  WB: HeLa, A431, MCF7, K563, SW620 and HepG2 cell lysates; mouse lung, mouse heart and rat liver tissue lysates. IHC-P: Human kidney, human colon carcinoma, mouse testis and rat brain tissues.

**Properties**

**Form**  Liquid  
**Storage instructions**  Shipped at 4°C. Store at 4°C (stable for up to 12 months). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.  
**Storage buffer**  pH: 7.3  
Preservative: 0.02% Sodium azide  
Constituents: 50% Glycerol, 49% PBS  
**Purity**  Immunogen affinity purified  
**Clonality**  Polyclonal  
**Isotype**  IgG

**Applications**

Our **Abpromise guarantee** covers the use of **ab180714** in the following tested applications.

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

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<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tr>
<td>IHC-Fr</td>
<td>⭐⭐⭐⭐☆</td>
<td>1/100.</td>
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Relevance: SNAIL is involved in the epithelial to mesenchymal transition (EMT) and formation and maintenance of embryonic mesoderm (By similarity). Binds to 3 E-boxes of the E-cadherin gene promoter and represses its transcription. SLUG is a transcriptional repressor, involved in the generation and migration of neural crest cells.

PTM: SNAIL is phosphorylated by GSK3B. Once phosphorylated, it becomes a target for BTRC ubiquitination. 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. Similarity: Both SNAIL and SLUG belong to the snail C2H2-type zinc-finger protein family.

Tissue specificity: SNAIL is expressed in a variety of tissues with the highest expression in kidney. Expressed in mesenchymal and epithelial cell lines. SLUG is expressed in placenta and adult heart, pancreas, liver, kidney and skeletal muscle.

Cellular localization: Slug is generally nuclear, while Snail is known to be both cytoplasmic and nuclear. Once phosphorylated (probably on Ser-107, Ser-111, Ser-115 and Ser-119) snail is exported from the nucleus to the cytoplasm where subsequent phosphorylation of the destruction motif and ubiquitination involving BTRC occurs.

Images:

- Anti-SNAIL + SLUG antibody (ab180714) at 1/500 dilution + Mouse heart tissue extracts

  **Predicted band size:** 29 kDa
Western blot - Anti-SNAIL + SLUG antibody (ab180714)

All lanes: Anti-SNAIL + SLUG antibody (ab180714)

Lane 1: HeLa cell lysate
Lane 2: A431 cell lysate
Lane 3: HepG2 cell lysate
Lane 4: Mouse lung tissue lysate
Lane 5: Rat liver tissue lysate

Predicted band size: 29 kDa

Immunohistochemical analysis of paraffin-embedded mouse testis tissue labeling SNAI1+SLUG with ab180714 at 1/50 dilution.
ab180714 staining SNAIL in human MCF10A cells by ICC/IF (Immunocytochemistry/Immunofluorescence). Cells were fixed with 3.7% PFA in PBS for 15 minutes and blocked with 0.1% Milk + 0.1% Tween in PBS for 30 minutes at 25°C. Samples were incubated with primary antibody (1/1000 in PBS + 0.1% Tween) for 16 hours at 4°C. An Alexa Fluor® 488-conjugated donkey anti-rabbit IgG polyclonal (1/500) was used as the secondary antibody.

Immunohistochemical analysis of paraffin-embedded rat brain tissue labeling SNAIL + SLUG with ab180714 at 1/100 dilution.

Western blot analysis of extracts of various cell lines using ab180714 at the dilution 1/500.
ab180714 staining SNAIL in Mouse kidney tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde; antigen retrieval was by heat mediation in a basic buffer (TRIS+EDTA, pH9). Samples were incubated with primary antibody (1/500 in antibody diluent) for 1 hour. An undiluted HRP-conjugated Goat anti-rabbit IgG polyclonal was used as the secondary antibody.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling SNAIL with ab180714. Tissue was fixed with formaldehyde and blocked with 5% BSA for 20 min at room temperature; antigen retrieval was by heat mediation with EDTA buffer (pH 9.0). Samples were incubated with primary antibody (1/100) for 12 hours at 4°C. A Biotin-conjugated mouse anti-rabbit IgG polyclonal (1/200) was used as the secondary antibody. Magnification: 200X.
Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue labeling SNAIL + SLUG with ab180714 at 1/100 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SNAIL + SLUG antibody (ab180714)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling SNAIL with ab180714. Tissue was fixed with formaldehyde and blocked with 5% BSA for 20 min at room temperature; antigen retrieval was by heat mediation with EDTA buffer (pH 9.0). Samples were incubated with primary antibody (1/100) for 12 hours at 4°C. A Biotin-conjugated mouse anti-rabbit IgG polyclonal (1/200) was used as the secondary antibody. Magnification: 400X.

Lane 1: Snail recombinant 0.1 ug (55 kDa)
Lane 2: Slug recombinant 0.1 ug (56 kDa)

Western blot - Anti-SNAIL + SLUG antibody (ab180714)
ab180714 staining SNAIL in mouse embryonic heart tissue sections by Immunohistochemistry (IHC-Fr - frozen sections). Tissue was fixed with paraformaldehyde and blocked with 1% BSA for 30 minutes at room temperature. Samples were incubated with primary antibody (1/100 in blocking buffer) for 16 hours at 4°C. An undiluted Alexa Fluor® 488-conjugated donkey anti-rabbit IgG polyclonal was used as the secondary antibody.

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