

## Product datasheet

### Anti-SATB2 antibody [SP281] - C-terminal ab227686

Recombinant RabMAb

[10 Images](#)

#### Overview

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<b>Product name</b>	Anti-SATB2 antibody [SP281] - C-terminal
<b>Description</b>	Rabbit monoclonal [SP281] to SATB2 - C-terminal
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB, IHC-FoFr <b>Unsuitable for:</b> Flow Cyt or ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: HT1080 cell lysate. IHC-P: Human colon and colon adenocarcinoma tissues. Mouse colon and Rat colon tissues. IHC-Fr: mouse cerebral cortex.
<b>General notes</b>	<b>This product is FOR RESEARCH USE ONLY. For commercial use, please contact <a href="mailto:partnerships@abcam.com">partnerships@abcam.com</a>.</b>

#### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.60 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
<b>Purity</b>	Protein A/G purified
<b>Purification notes</b>	Purified from TCS by protein A/G.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	SP281
<b>Isotype</b>	IgG

#### Applications

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**The Abpromise guarantee**

Our **Abpromise guarantee** covers the use of ab227686 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
IHC-P		1/100. Boil tissue section in citrate buffer pH 6.0 for 10 minutes followed by cooling at room temperature for 20 minutes. Incubate for 10 minutes at room temperature.
WB		1/400. Predicted molecular weight: 83 kDa.
IHC-FoFr		1/20.

**Application notes**

Is unsuitable for Flow Cyt or ICC/IF.

**Target****Function**

Binds to DNA, at nuclear matrix- or scaffold-associated regions. Thought to recognize the sugar-phosphate structure of double-stranded DNA. Transcription factor controlling nuclear gene expression, by binding to matrix attachment regions (MARs) of DNA and inducing a local chromatin-loop remodeling. Acts as a docking site for several chromatin remodeling enzymes and also by recruiting corepressors (HDACs) or coactivators (HATs) directly to promoters and enhancers. Required for the initiation of the upper-layer neurons (UL1) specific genetic program and for the inactivation of deep-layer neurons (DL) and UL2 specific genes, probably by modulating BCL11B expression. Repressor of Ctip2 and regulatory determinant of corticocortical connections in the developing cerebral cortex. May play an important role in palate formation. Acts as a molecular node in a transcriptional network regulating skeletal development and osteoblast differentiation.

**Tissue specificity**

High expression in adult brain, moderate expression in fetal brain, and weak expression in adult liver, kidney, and spinal cord and in select brain regions, including amygdala, corpus callosum, caudate nucleus, and hippocampus.

**Involvement in disease**

Note=Chromosomal aberrations involving SATB2 are found in isolated cleft palate. Translocation t(2;7); translocation t(2;11).  
Defects in SATB2 are a cause of cleft palate isolated (CPI) [MIM:119540]. A congenital fissure of the soft and/or hard palate, due to faulty fusion. Isolated cleft palate is not associated with cleft lips. Some patients may manifest other craniofacial dysmorphic features, mental retardation, and osteoporosis.  
Note=A chromosomal aberration involving SATB2 is found in a patient with classical features of Toriello-Carey syndrome. Translocation t(2;14)(q33;q22).

**Sequence similarities**

Belongs to the CUT homeobox family.  
Contains 2 CUT DNA-binding domains.  
Contains 1 homeobox DNA-binding domain.

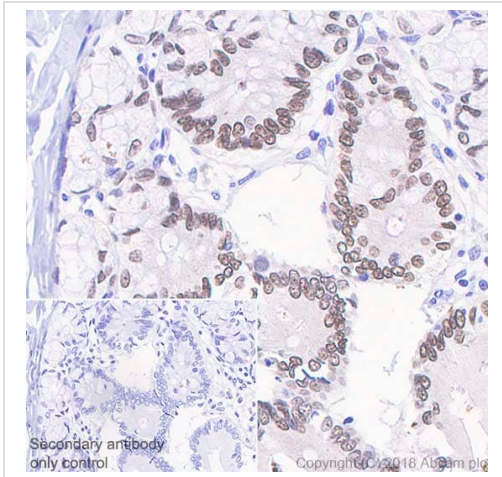
**Post-translational modifications**

Sumoylated by PIAS1. Sumoylation promotes nuclear localization, but represses transcription factor activity.

**Cellular localization**

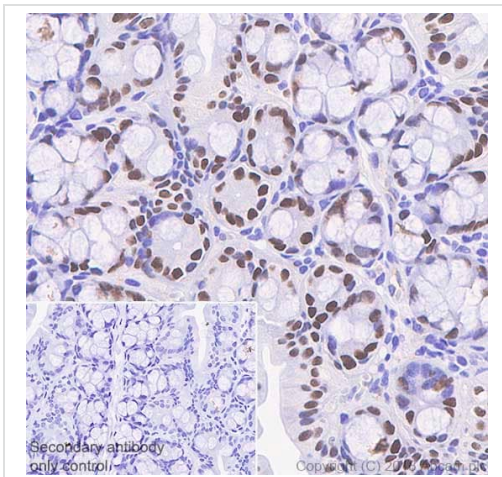
Nucleus matrix.

**Images**



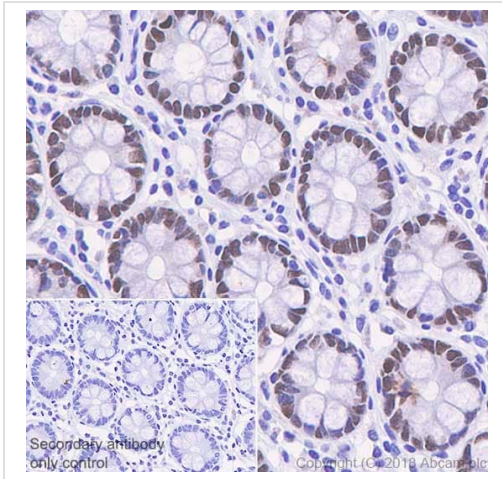
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SATB2 antibody [SP281] - C-terminal (ab227686)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat colon tissue sections labeling SATB2 with ab227686 at 1/100 dilution (1.58 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Hematoxylin was used as a counterstain. Nuclear staining on the rat colon, performed on a Leica Biosystems BOND™ RX instrument. The section was incubated with ab227686 for 10 mins at room temperature.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SATB2 antibody [SP281] - C-terminal (ab227686)

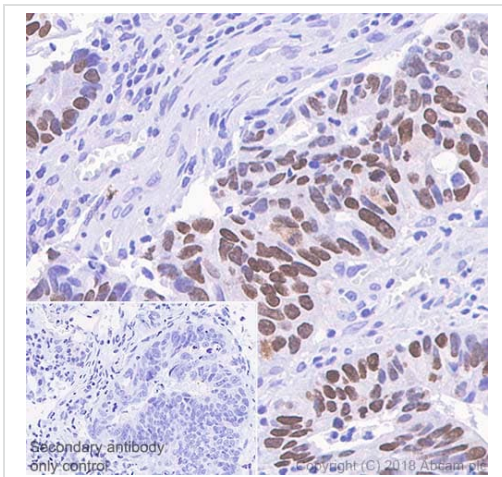
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse colon tissue sections labeling SATB2 with ab227686 at 1/100 dilution (1.58 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Hematoxylin was used as a counterstain. Nuclear staining on the mouse colon, performed on a Leica Biosystems BOND™ RX instrument. The section was incubated with ab227686 for 10 mins at room temperature.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SATB2 antibody [SP281]  
- C-terminal (ab227686)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human colon tissue sections labeling SATB2 with ab227686 at 1/100 dilution (1.58 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Hematoxylin was used as a counterstain. Nuclear staining on the human colon, performed on a Leica Biosystems BOND™ RX instrument.

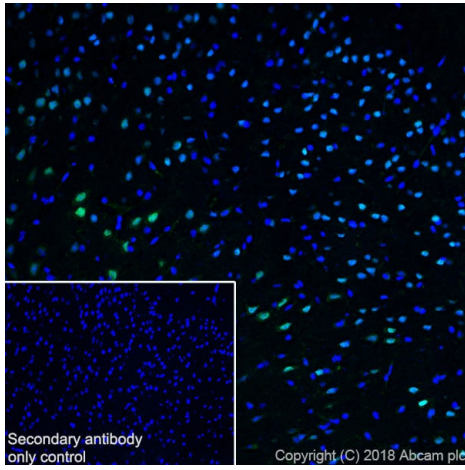
The section was incubated with ab227686 for 10 mins at room temperature.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SATB2 antibody [SP281]  
- C-terminal (ab227686)

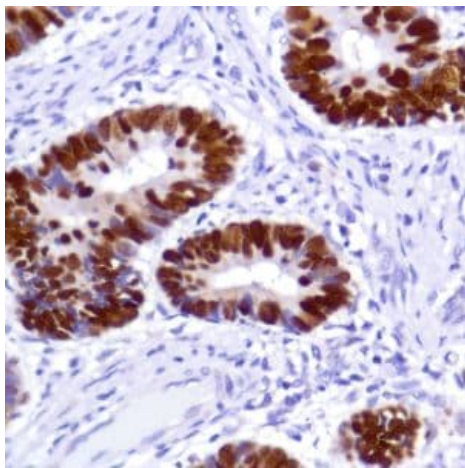
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human colon carcinoma tissue sections labeling SATB2 with ab227686 at 1/100 dilution (1.58 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Hematoxylin was used as a counterstain. Nuclear staining on the human colon carcinoma, performed on a Leica Biosystems BOND™ RX instrument.

The section was incubated with ab227686 for 10 mins at room temperature.



Immunohistochemistry (PFA perfusion fixed frozen sections) analysis of mouse cerebral cortex tissue sections labeling SATB2 with purified ab227686 at 1:20 (7.9 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. DAPI was used as a counterstain.

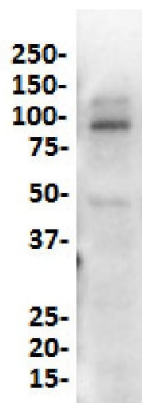
Immunohistochemistry (PFA perfusion fixed frozen sections) - Anti-SATB2 antibody [SP281] - C-terminal (ab227686)



Formalin-fixed, paraffin-embedded human colon adenocarcinoma tissue stained for SATB2 using ab227686 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SATB2 antibody [SP281] - C-terminal (ab227686)

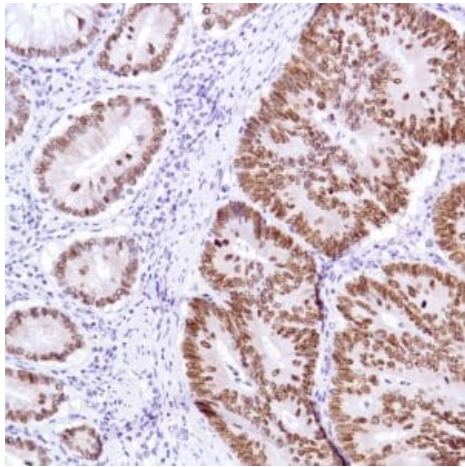




Western blot - Anti-SATB2 antibody [SP281] - C-terminal (ab227686)

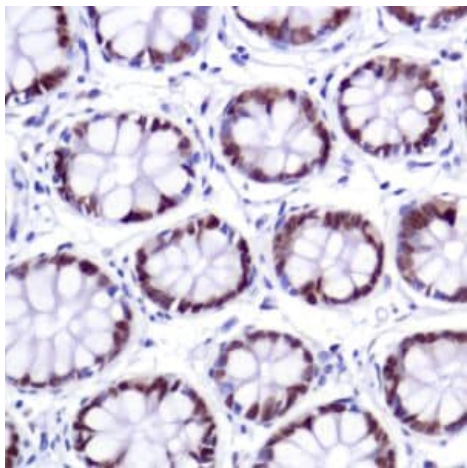
Anti-SATB2 antibody [SP281] - C-terminal (ab227686) at 1/400 dilution + HT1080 (human fibrosarcoma cell line) cell lysate

**Predicted band size:** 83 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SATB2 antibody [SP281] - C-terminal (ab227686)

Formalin-fixed, paraffin-embedded human colon adenocarcinoma tissue stained for SATB2 using ab227686 at 1/100 dilution in immunohistochemical analysis.



Formalin-fixed, paraffin-embedded human colon tissue stained for SATB2 using ab227686 at 1/100 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SATB2 antibody [SP281]  
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### 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-SATB2 antibody [SP281] - C-terminal  
(ab227686)

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

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- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

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