

# Anti-SATB2 antibody [EPNCIR130A] - BSA and Azide free ab212177

KO 評価済 リコンビナント RabMAb

画像数 8

### 製品の概要

製品名	Anti-SATB2 antibody [EPNCIR130A] - BSA and Azide free
製品の詳細	Rabbit monoclonal [EPNCIR130A] to SATB2 - BSA and Azide free
由来種	Rabbit
アプリケーション	<b>適用あり:</b> Flow Cyt (Intra), IHC-P, WB, ICC/IF <b>適用なし:</b> IP
種交差性	<b>交差種:</b> Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: HT-1080, SW1353, MCF7 and Saos-2 cell lysates. Rat and mouse brain and human fetal brain tissue lysates. IHC-P: Human cerebral cortex tissue. ICC/IF: Saos-2 cells
特記事項	<p>ab212177 is the carrier-free version of <a href="#">ab92446</a>.</p> <p>This antibody was developed as part of a collaboration between Epitomics, the National Cancer Institute's Center for Cancer Research and the lab of John Niederhuber. <b><u><a href="#">View antibodies from NCI Center for Cancer Research Collaboration</a></u></b>.</p> <p>Our <b>carrier-free</b> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li></ul>

- Animal-free production

For more information [see here](#).

Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

## 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C. Do Not Freeze.
バッファー	pH: 7.20 Constituent: PBS
キャリア・フリー	はい
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPNCIR130A
アイソタイプ	IgG

## アプリケーション

**The Abpromise guarantee**      **Abpromise保証は、次のテスト済みアプリケーションにおけるab212177の使用に適用されます**  
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Flow Cyt (Intra)		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <a href="#">IHC antigen retrieval protocols</a> .
WB		Use at an assay dependent concentration. Predicted molecular weight: 81 kDa.
ICC/IF		Use at an assay dependent concentration.

**追加情報**      Is unsuitable for IP.

## ターゲット情報

**機能**      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.

#### 組織特異性

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.

#### 関連疾患

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).

#### 配列類似性

Belongs to the CUT homeobox family.

Contains 2 CUT DNA-binding domains.

Contains 1 homeobox DNA-binding domain.

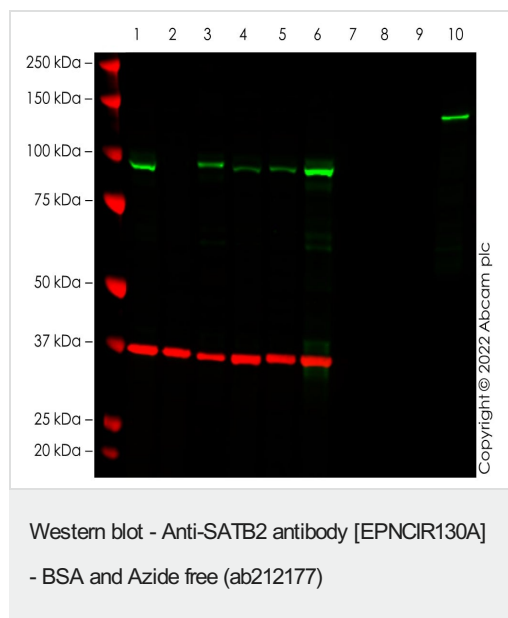
#### 翻訳後修飾

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

#### 細胞内局在

Nucleus matrix.

## 画像



**All lanes** : Anti-SATB2 antibody [EPNCIR130A] ([ab92446](#)) at 1/1000 dilution

**Lane 1** : Wild-type HAP1 cell lysate at 20 µg

**Lane 2** : SATB2 knockout HAP1 cell lysate at 20 µg

**Lane 3** : Mouse E18 Embryonic brain cell lysate at 20 µg

**Lane 4** : NIH/3T3 cell lysate at 20 µg

**Lane 5** : HT1080 cell lysate at 20 µg

**Lane 6** : Saos-2 cell lysate at 20 µg

**Lanes 7 & 9** : Empty

**Lane 8** : SATB1 Recombinant Protein cell lysate at 0.1 µg

**Lane 10** : SATB2 Recombinant Protein ([ab132405](#)) cell lysate at 0.1 µg

#### Secondary

**All lanes** : Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution

Performed under reducing conditions.

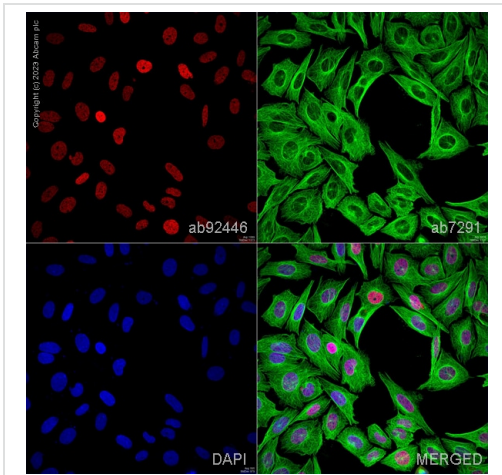
**Predicted band size:** 81 kDa

**Observed band size:** 100 kDa

This data was developed using the same antibody clone in a different buffer formulation ([ab92446](#)).

False colour image of Western blot: Anti-SATB2 antibody [EPNCIR130A] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] ([ab8245](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, [ab92446](#) was shown to bind specifically to SATB2. A band was observed at 100 kDa in wild-type HAP1 cell lysates with no signal observed at this size in SATB2 knockout cell line.

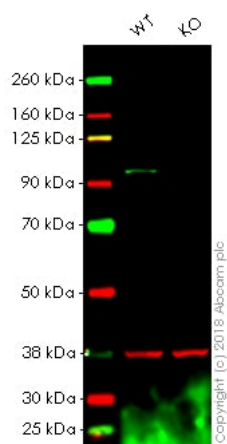
To generate this image, wild-type and SATB2 knockout HAP1 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-SATB2 antibody [EPNCIR130A] - BSA and Azide free ([ab212177](#))

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab92446](#)).

Immunocytochemistry/Immunofluorescence analysis of Saos-2 cells (human osteosarcoma cell line) labelling SATB2 (red) with purified [ab92446](#) at 1/100 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. [ab150083](#), an Alexa Fluor® 647-conjugated goat anti-rabbit IgG H&L (1/1000), was used as the secondary antibody. Tubulin (green) was stained with [ab7291](#), an anti-alpha tubulin antibody (1/1000). DAPI (blue) was used as the nuclear counterstain.



Western blot - Anti-SATB2 antibody [EPNCIR130A]  
- BSA and Azide free (ab212177)

**All lanes** : Anti-SATB2 antibody [EPNCIR130A] ([ab92446](#)) at 1/1000 dilution

**Lane 1** : Wild-type HAP1 whole cell lysate

**Lane 2** : SATB2 knockout HAP1 whole cell lysate

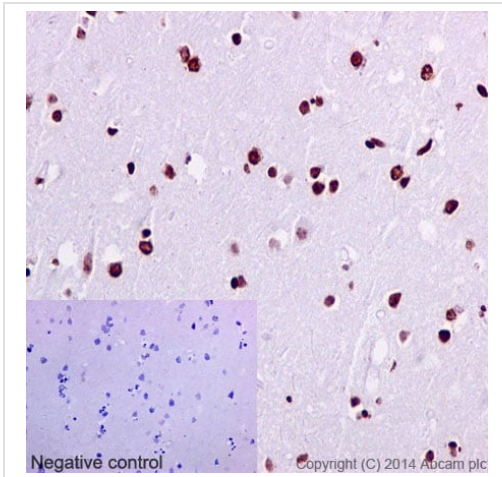
Lysates/proteins at 20 µg per lane.

**Predicted band size:** 81 kDa

**Lanes 1 - 2:** Merged signal (red and green). Green - [ab92446](#) observed at 83 kDa. Red - loading control, [ab9484](#), observed at 37 kDa.

[ab92446](#) was shown to specifically react with SATB2 in wild-type HAP1 cells as signal was lost in SATB2 knockout cells. Wild-type and SATB2 knockout samples were subjected to SDS-PAGE. Ab92446 and [ab9484](#) (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed [ab216773](#) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed [ab216776](#) secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

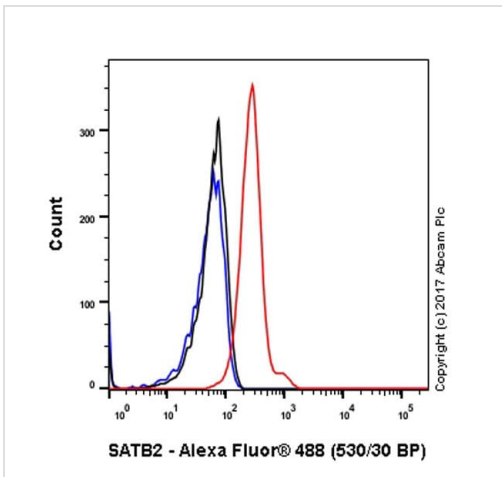
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab92446](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human cerebral cortex tissue labelling SATB2 with purified **ab92446** at 1/150. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. A prediluted HRP-polymer conjugated anti-rabbit IgG was used as the secondary antibody. Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab92446**).

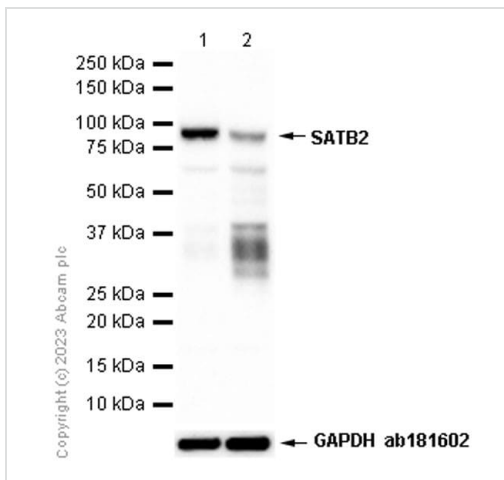
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SATB2 antibody [EPNCIR130A] - BSA and Azide free (ab212177)



Intracellular Flow Cytometry analysis of SH-SY5Y cells (human neuroblastoma cell line from bone marrow) labeling SATB2 with purified **ab92446** at 1/150 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) (**ab150077**) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) (**ab172730**) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab92446**).

Flow Cytometry (Intracellular) - Anti-SATB2 antibody [EPNCIR130A] - BSA and Azide free (ab212177)



Western blot - Anti-SATB2 antibody [EPNCIR130A]  
- BSA and Azide free (ab212177)

**All lanes** : Anti-SATB2 antibody [EPNCIR130A] ([ab92446](#)) at 1/10000 dilution

**Lane 1** : Saos-2 (Human osteosarcoma epithelial) whole cell fresh lysate

**Lane 2** : Saos-2 (Human osteosarcoma epithelial) whole cell lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

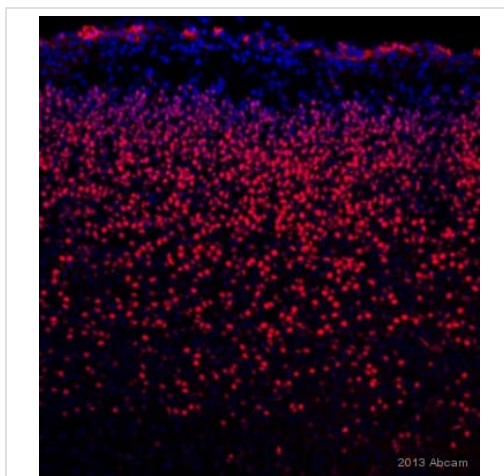
**Predicted band size:** 81 kDa

**Observed band size:** 83 kDa

This data was developed using the same antibody clone in a different buffer formulation ([ab92446](#)).

Blocking and diluting buffer and concentration: 5% NFDm/TBST

Freshly made lysate is highly recommended to minimize protein degradation.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SATB2 antibody [EPNCIR130A] - BSA and Azide free (ab212177)  
This image is courtesy of an anonymous Abreview.

Unpurified [ab92446](#) staining SATB2 in E18 Mouse brain tissue sections by Immunohistochemistry (PFA perfusion fixed frozen sections). Tissue samples were fixed by perfusion with paraformaldehyde, permeabilized with 0.3% Triton-X 100 and blocked with 3% BSA for 30 minutes at 25°C. The sample was incubated with primary antibody (1/500 in TBS with 0.1% Triton-X 100 + 3% Goat serum) at 4°C for 12 hours. An Alexa Fluor® 546-conjugated Goat anti-rabbit polyclonal (1/1000) was used as the secondary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab92446](#)).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

## 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 [EPNCIR130A] - BSA and Azide free (ab212177)

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

### Our Abpromise to you: Quality guaranteed and expert technical support

---

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- 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.co.jp/abpromise> or contact our technical team.

### Terms and conditions

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors