

Anti-SATB1 antibody [SP287] - BSA and Azide free ab272006

Recombinant

6 Images

Overview

Product name	Anti-SATB1 antibody [SP287] - BSA and Azide free
Description	Rabbit monoclonal [SP287] to SATB1 - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human thymus, tonsil, HK lymphoma, lymph node and B-cell lymphoma tissue.
General notes	<p>ab272006 is the carrier-free version of ab226834.</p> <p>Our carrier-free 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 conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <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[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] 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"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>This product is FOR RESEARCH USE ONLY. For commercial use, please contact</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A/G purified
Clonality	Monoclonal
Clone number	SP287
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab272006 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		Use at an assay dependent concentration. Primary incubation for 10 minutes at room temperature.

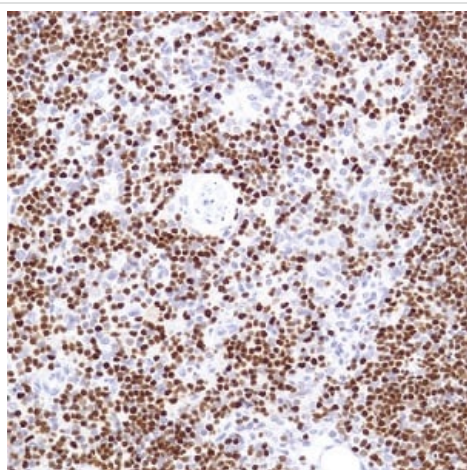
Target

Function

Crucial silencing factor contributing to the initiation of X inactivation mediated by Xist RNA that occurs during embryogenesis and in lymphoma (By similarity). Binds to DNA at special AT-rich sequences, the consensus SATB1-binding sequence (CSBS), at nuclear matrix- or scaffold-associated regions. Thought to recognize the sugar-phosphate structure of double-stranded DNA. Transcriptional repressor controlling nuclear and viral gene expression in a phosphorylated and acetylated status-dependent manner, 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 (e.g. PML at the MHC-I locus) and also by recruiting corepressors (HDACs) or coactivators (HATs) directly to promoters and enhancers. Modulates genes that are essential in the maturation of the immune T-cell CD8SP from thymocytes. Required for the switching of fetal globin species, and beta- and gamma-globin genes regulation during erythroid differentiation. Plays a role in chromatin organization and nuclear architecture during apoptosis. Interacts with the unique region (UR) of cytomegalovirus (CMV). Alu-like motifs and SATB1-binding sites provide a unique chromatin context which seems preferentially targeted by the HIV-1 integration machinery. Moreover, HIV-1 Tat may overcome SATB1-mediated repression of IL2 and IL2RA (interleukin) in T-cells by binding to the same domain than HDAC1. Delineates specific epigenetic modifications at target gene loci, directly upregulating metastasis-associated genes while downregulating tumor-suppressor genes. Reprograms chromatin organization and the transcription profiles of

	breast tumors to promote growth and metastasis.
Tissue specificity	Expressed predominantly in thymus.
Sequence similarities	<p>Belongs to the CUT homeobox family.</p> <p>Contains 2 CUT DNA-binding domains.</p> <p>Contains 1 homeobox DNA-binding domain.</p>
Post-translational modifications	<p>Sumoylated. Sumoylation promotes cleavage by caspases.</p> <p>Phosphorylated by PKC. Acetylated by PCAF. Phosphorylated form interacts with HDAC1, but unphosphorylated form interacts with PCAF. DNA binding properties are activated by phosphorylation and inactivated by acetylation. In opposition, gene expression is down-regulated by phosphorylation but up-regulated by acetylation.</p> <p>Cleaved at Asp-254 by caspase-3 and caspase-6 during T-cell apoptosis in thymus and during B-cell stimulation. The cleaved forms can not dimerize and lose transcription regulation function because of impaired DNA and chromatin association.</p>
Cellular localization	Nucleus matrix. Nucleus > PML body. Organized into a cage-like network anchoring loops of heterochromatin and tethering specialized DNA sequences. When sumoylated, localized in promyelocytic leukemia nuclear bodies.
Form	There are 2 isoforms produced by alternative splicing.

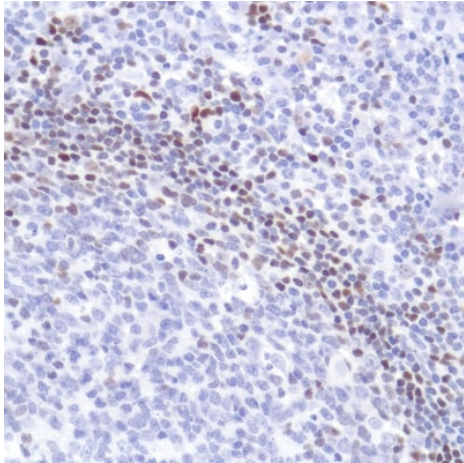
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SATB1 antibody [SP287]
- BSA and Azide free (ab272006)

Formalin fixed, paraffin embedded human thymus tissue stained for SATB1 with [ab226834](#) at 1/100 dilution in immunohistochemical analysis.

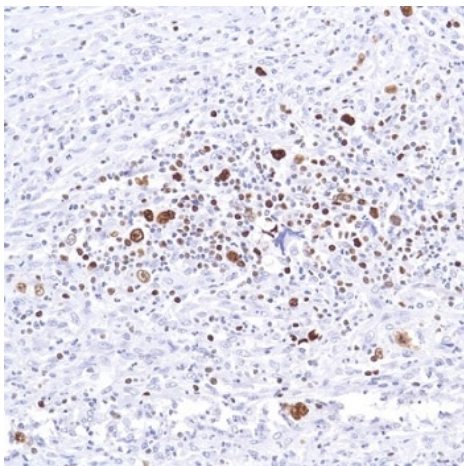
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab226834](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SATB1 antibody [SP287]
- BSA and Azide free (ab272006)

Formalin fixed, paraffin embedded human tonsil tissue stained for SATB1 with [ab226834](#) at 1/100 dilution in immunohistochemical analysis.

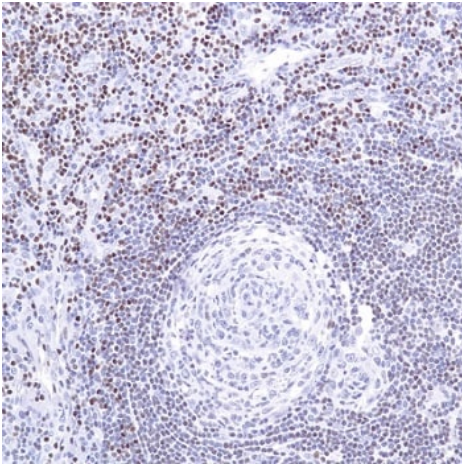
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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SATB1 antibody [SP287]
- BSA and Azide free (ab272006)

Formalin fixed, paraffin embedded human HK lymphoma tissue stained for SATB1 with [ab226834](#) at 1/100 dilution in immunohistochemical analysis.

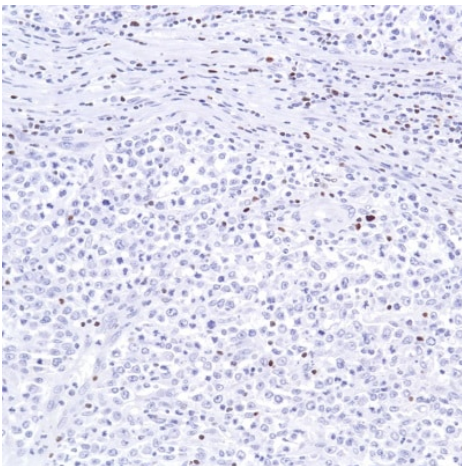
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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SATB1 antibody [SP287]
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Formalin fixed, paraffin embedded human lymph node tissue stained for SATB1 with [ab226834](#) at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab226834](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SATB1 antibody [SP287]
- BSA and Azide free (ab272006)

Formalin fixed, paraffin embedded human B-cell lymphoma tissue stained for SATB1 with [ab226834](#) at 1/100 dilution in immunohistochemical analysis.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab226834](#)).

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

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(ab272006)

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

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