# abcam

### Product datasheet

## HRP Anti-SATB1 antibody [EPR3951] ab203964



重组 RabMAb

#### 2 图像

#### 概述

产品名称 HRP Anti-SATB1抗体[EPR3951]

描述 HRP兔单克隆抗体[EPR3951] to SATB1

宿主 Rabbit 偶联物 HRP

经测试应用 适用于: WB 与反应: Mouse 种属反应性

预测可用于: Human 📤

免疫原 Synthetic peptide within Human SATB1 (C terminal). The exact immunogen sequence used to

> generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please contact our Scientific Support

team to discuss your requirements.

Database link: Q01826

阳性对照 WB: Mouse thymus tissue lysate.

常规说明 This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb patents**.

#### 性能

形式 Liquid

存放说明 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C.

Stable for 12 months at -20°C. Store In the Dark.

存储溶液 pH: 7.40

Preservative: 0.1% Proclin 300 Solution

Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA

纯**度** Protein A purified

**克隆** 单克隆

**克隆编号** EPR3951

**同种型** IgG

#### 应用

#### The Abpromise guarantee Abpromise™承诺保证使用ab203964于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		1/5000. Detects a band of approximately 100 kDa (predicted molecular weight: 86 kDa).

#### 靶标

#### 功能

翻译后修饰

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 scaffoldassociated 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.

组织**特异性** Expressed predominantly in thymus.

序列相似性 Belongs to the CUT homeobox family.

Contains 2 CUT DNA-binding domains.

Contains 1 homeobox DNA-binding domain.

Sumoylated. Sumoylation promotes cleavage by caspases.

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.

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

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because of impaired DNA and chromatin association.

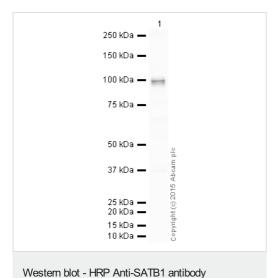
细胞定位

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.

形式

There are 2 isoforms produced by alternative splicing.

#### 图片



[EPR3951] (ab203964)

HRP Anti-SATB1 antibody [EPR3951] (ab203964) at 1/5000 dilution + Thymus (Mouse) Tissue Lysate at 10 μg

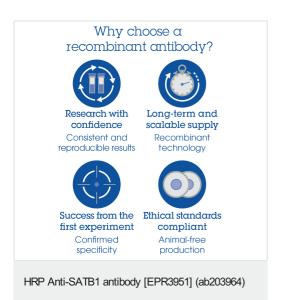
Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 86 kDa **Observed band size:** 100 kDa

Exposure time: 10 seconds

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% milk before being incubated with ab203964 overnight at 4°C. Antibody binding was visualised using ECL development solution **ab133406**.



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