abcam

Product datasheet

Anti-SATB1 antibody ab70004

14 References 3 图像

概述

产**品名称** Anti-SATB1抗体

描述 兔多克隆抗体to SATB1

宿主 Rabbit

经测试应用 适用于: WB, ICC/IF, IHC-P

种属反应性 与反应: Human

免疫原 18 amino acid peptide near the amino terminus of the human SATB1 (GenBank accession no.

Q01826).

常规说明

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

性能

形式 Liquid

存放说明 Shipped at 4°C. Store at +4°C.

存储溶液 pH: 7.2

Preservative: 0.02% Sodium azide

Constituent: PBS

纯**度** Immunogen affinity purified

应用

The Abpromise guarantee Abpromise™承诺保证使用ab70004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。

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应用	Ab评论	说明
WB		Use a concentration of 1 - 2 µg/ml. Detects a band of approximately 100, 110 kDa (predicted molecular weight: 85 kDa).
ICC/IF		Use a concentration of 20 µg/ml.
IHC-P		Use a concentration of 2.5 µg/ml.

靶标

功能

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

序列相似性

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

Contains 1 homeobox DNA-binding domain.

Expressed predominantly in thymus.

翻译后修饰

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.

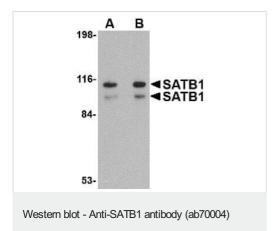
Cleaved at Asp-254 by caspase-3 and caspase-6 during T-cell apoptosis in thymus and during B-cell stimulation. The cleaved forms can not dimerize and lose transcription regulation function because of impaired DNA and chromatin association.

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.



Lane 1: Anti-SATB1 antibody (ab70004) at 1 μg/ml **Lane 2**: Anti-SATB1 antibody (ab70004) at 2 μg/ml

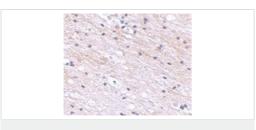
All lanes: SK-N-SH cell lysate

Lysates/proteins at 15 µg per lane.

Predicted band size: 85 kDa

Additional bands at: 100 kDa (possible isoform), 110 kDa

(possible isoform)



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-SATB1 antibody (ab70004)

ab70004 at $2.5 \mu g/ml$ staining SATB1 in human brain tissue section by immunohistochemistry (Formalin/ PFA fixed paraffin-embedded tissue sections).

Immunocytochemistry/ Immunofluorescence - Anti-SATB1 antibody (ab70004) Immunofluorescence of SATB1 in Human Brain cells using ab70004 at 20 ug/ml.

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