Data Sheet (Cat.No.TMAC-03687)

Anti-SATB1 Antibody (9Q281)

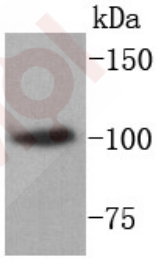
Product Details

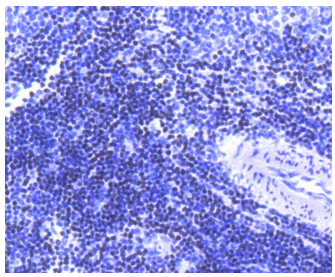
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 100 kDa.
Clone:	9Q281
Purification:	ProA affinity purified

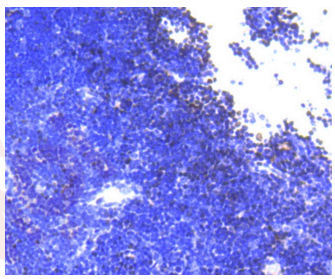
Applications

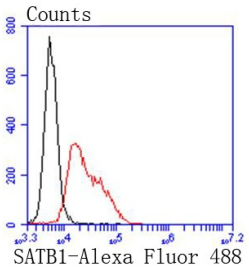
Verified Activity:

1. Western blot analysis of SATB1 on human thymus lysates using anti-SATB1 antibody at 1/1,000 dilution.
2. Immunohistochemical analysis of paraffin-embedded rat spleen tissue using anti-SATB1 antibody. Counter stained with hematoxylin.
3. Immunohistochemical analysis of paraffin-embedded mouse thymus tissue using anti-SATB1 antibody. Counter stained with hematoxylin.
4. Flow cytometric analysis of Jurkat cells with SATB1 antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.









Application: FCM,ICC/IF,IHC,IP,WB

Recommended: WB: 1:1000; IHC: 1:50-200; ICC/IF: 1:50-200; FCM: 1:50-100

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein

Uniprot ID: Q01826

Synonyms: DNA binding protein SATB1;Special AT rich sequence binding protein 1 (binds to nuclear matrix/scaffold associating DNA);Special AT-rich sequence-binding protein 1;Special AT rich sequence binding protein 1;SATB1_HUMAN;SATB homeobox 1;DNA-binding protein SATB1; SATB 1

Research Background

The homeoproteins CCAAT displacement protein (CDP) and special AT-rich sequence binding protein 1 (SATB1) are transcriptional repressors of many cellular genes, and they participate in cell development and cell type differentiation. SATB1 is expressed primarily in thymocytes, and, like CDP, it also contains a distinct homeobox DNA-binding domain that is essential for DNA binding. SATB1 and CDP interact through these homeodomains and synergistically function as mediators of gene expression. SATB1 contains an additional domain that has a higher affinity for DNA and specifically facilitates the direct association between SATB1 and the nuclear matrix attachment regions (MARs) of DNA. MARs are specific DNA sequences that bind to the nuclear matrix and form the base of chromosomal loops that organize the chromosomes and regulate DNA transcription and replication within the nucleus. The association of SATB1 with the core unwinding element within the base-unpairing region of MARs requires both the MAR and homeobox binding domains of SATB1.

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