

Datasheet for ABIN968403

anti-SATB1 antibody (AA 550-667)**2** Images**7** Publications[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	SATB1
Binding Specificity:	AA 550-667
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This SATB1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human SATB1 aa. 550-667
Clone:	14-SATB1
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine), Rat (Rattus)
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

chromatography.

Target Details

Target:	SATB1
Alternative Name:	SATB1 (SATB1 Products)
Background:	<p>Packaging of fully functional eukaryotic chromosomal DNA within the nucleus requires a highly ordered organizational process. Central to this is the formation of nucleosomes, which consist of octameric histone cores with defined segments of chromatin wound around them, and the interaction of nucleosomes with nuclear matrix components. Such specific genomic DNA segments that interact with the nuclear matrix are called scaffold or matrix attachment regions (SARs or MARs). SATB1 (Special AT-rich sequence-Binding protein 1), expressed predominantly in the thymus, is a homeodomain MAR binding protein. It recognizes ATC sequences that consist of stretches of A's, T's, and C's on one DNA strand. These sequences tend to unwind by extensive base-unpairing in response to negative superhelical strain. SATB1 exclusively binds double stranded DNA in the minor groove with minimal base contact and it has a low affinity for supercoiled DNA. In addition, SATB1 is thought to act as a transcriptional repressor. SATB1 is a MAR binding protein that binds to the base of chromatin loops and may be essential to T cell-specific gene regulation. This antibody is routinely tested by western blot analysis.</p> <p>Synonyms: Special AT-rich sequence-Binding protein-1</p>
Molecular Weight:	106 kDa
Pathways:	Caspase Cascade in Apoptosis, Activated T Cell Proliferation

Application Details

Comment:	Related Products: ABIN968537, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide

Handling

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: -20 °C

Storage Comment: Store undiluted at -20°C.

Publications

Product cited in: Skowronska-Krawczyk, Ma, Schwartz, Scully, Li, Liu, Taylor, Tollkuhn, Ohgi, Notani, Kohwi, Kohwi-Shigematsu, Rosenfeld: "Required enhancer-matrix-3 network interactions for a homeodomain transcription program." in: **Nature**, Vol. 514, Issue 7521, pp. 257-61, (2014) ([PubMed](#)).

Beyer, Thabet, Müller, Sadlon, Classen, Lahl, Basu, Zhou, Bailey-Bucktrout, Krebs, Schönfeld, Böttcher, Golovina, Mayer, Hofmann, Sommer, Debey-Pascher, Endl, Limmer, Hippen, Blazar, Balderas, Quast et al.: "Repression of the genome organizer SATB1 in regulatory T cells is required for suppressive function and inhibition of effector differentiation. ..." in: **Nature immunology**, Vol. 12, Issue 9, pp. 898-907, (2011) ([PubMed](#)).

Alvarez, Yasui, Niida, Joh, Loh, Kohwi-Shigematsu: "The MAR-binding protein SATB1 orchestrates temporal and spatial expression of multiple genes during T-cell development." in: **Genes & development**, Vol. 14, Issue 5, pp. 521-35, (2000) ([PubMed](#)).

Cai, Kohwi-Shigematsu: "Intranuclear relocalization of matrix binding sites during T cell activation detected by amplified fluorescence in situ hybridization." in: **Methods (San Diego, Calif.)**, Vol. 19, Issue 3, pp. 394-402, (2000) ([PubMed](#)).

de Belle, Cai, Kohwi-Shigematsu: "The genomic sequences bound to special AT-rich sequence-binding protein 1 (SATB1) in vivo in Jurkat T cells are tightly associated with the nuclear matrix at the bases of the chromatin loops." in: **The Journal of cell biology**, Vol. 141, Issue 2, pp. 335-48, (1998) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)



Western Blotting

Image 1. Western blot analysis of SATB1 on a Jurkat cell lysate (Human T-cell leukemia, ATCC TIB-152). Lane 1: 1:250, lane 2: 1: 500, lane 3: 1: 1000 dilution of the mouse anti- SATB1 antibody.

Image 2.

