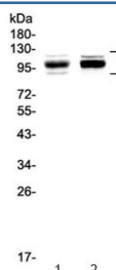


## SATB1 Antibody (RQ4288)

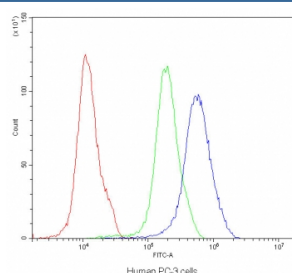
Catalog No.	Formulation	Size
RQ4288	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

**Bulk quote request**

<b>Availability</b>	1-3 business days
<b>Species Reactivity</b>	Human, Mouse, Rat
<b>Format</b>	Antigen affinity purified
<b>Clonality</b>	Polyclonal (rabbit origin)
<b>Isotype</b>	Rabbit IgG
<b>Purity</b>	Antigen affinity purified
<b>Buffer</b>	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
<b>UniProt</b>	Q01826
<b>Localization</b>	Nucleus
<b>Applications</b>	Western Blot : 0.5-1ug/ml Flow Cytometry : 1-3ug/10 <sup>6</sup> cells Direct ELISA : 0.1-0.5ug/ml
<b>Limitations</b>	This SATB1 antibody is available for research use only.



Western blot testing of 1) rat thymus and 2) mouse thymus with SATB1 antibody at 0.5ug/ml. Predicted molecular weight ~86 kDa, routinely observed at 100~110 kDa.



Flow cytometry testing of human PC-3 cells with SATB1 antibody at 1ug/10<sup>6</sup> cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue=SATB1 antibody.

## Description

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 up-regulating metastasis-associated genes while down-regulating tumor-suppressor genes. Reprograms chromatin organization and the transcription profiles of breast tumors to promote growth and metastasis. [UniProt]

## Application Notes

Optimal dilution of the SATB1 antibody should be determined by the researcher.

## Immunogen

A recombinant human protein corresponding to amino acids D638-D763 was used as the immunogen for the SATB1 antibody.

## Storage

After reconstitution, the SATB1 antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.