

SATB1 antibody - C-terminal region

Rabbit Polyclonal Antibody Catalog # Al11378

# Specification

# SATB1 antibody - C-terminal region - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Calculated MW WB <u>Q01826</u> <u>NM\_002971</u>, <u>NP\_002962</u> Human, Mouse, Rat, Rabbit, Horse Human, Mouse, Rat, Pig, Chicken Rabbit Polyclonal 86kDa KDa

# SATB1 antibody - C-terminal region - Additional Information

Gene ID 6304

**Other Names** DNA-binding protein SATB1, Special AT-rich sequence-binding protein 1, SATB1

Format

Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

#### **Reconstitution & Storage**

Add 100 ul of distilled water. Final anti-SATB1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

**Precautions** SATB1 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

# SATB1 antibody - C-terminal region - Protein Information

#### Name SATB1 (HGNC:10541)

#### Function

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. Promotes neuronal differentiation of neural stem/progenitor cells in the adult subventricular zone, possibly by positively regulating the expression of NEUROD1 (By similarity).

#### **Cellular Location**

Nucleus matrix. Nucleus, PML body. Note=Organized into a cage-like network anchoring loops of heterochromatin and tethering specialized DNA sequences (PubMed:12692553). When sumoylated, localized in promyelocytic leukemia nuclear bodies (PML NBs) (PubMed:18408014)

#### Tissue Location

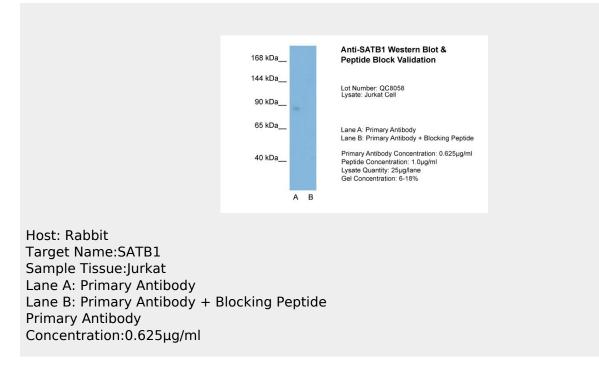
Expressed predominantly in thymus.

## SATB1 antibody - C-terminal region - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

#### SATB1 antibody - C-terminal region - Images





# Peptide Concentration: 1.0µg/ml

Lysate Quantity: 25ug/lane Gel

Concentration: 6%-18%SATB1 is supported by BioGPS gene expression data to be expressed in Jurkat

## SATB1 antibody - C-terminal region - References

Pavan., et al., (2006) Mol. Cell 22 (2), 231-243Reconstitution and Storage:For short term use, store at 2-8C up to 1 week. For long term storage, store at -20C in small aliquots to prevent freeze-thaw cycles.