SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

[Primary Antibody]

Rabbit Anti-SATB1 antibody

Catalog Number: SL1609R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	SATB1
Immunogen:	KLH conjugated synthetic peptide derived from mouse SATB1: 671-764/764
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	ELISA=1:5000-10000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse(predicted:Rat)
Predicted MW.:	86kDa
Subcellular Location:	The nucleus
Background:	This gene encodes a matrix protein which binds nuclear matrix and scaffold-associating DNAs through a unique nuclear architecture. The protein recruits chromatin-remodeling factors in order to regulate chromatin structure and gene expression. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2010] **Function:** 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 (By similarity). Crucial silencing factor contributing to the initiation of X inactivation mediated by Xist RNA that occurs during embryogenesis and in lymphoma. 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

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

	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 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. **Subunit:** Interacts with PCAF. Interacts with sumoylated PML and HDAC1 Tat via the PDZ-like dimerization domain. Interacts also with DYNLT3 and POLR2J2. Binds to EP300. Homodimer. Part of the nuclear protein complex gamma-globin promoter and enhancer binding factor (gamma-PE) composed at least by SATB1 and HOXB2. Interaction with CtBP1 when not acetylated stabalizes attachment to DNA and promotes transcription repression. Interacts (via DNA-binding domains) with CUX1; leading to inhibit the attachment to DNA. **Subcellular Location:** Nucleus. Nucleus, PML body. Note=Organized into a cage-like network anchoring loops of heterochromatin and tethering specialized DNA sequences. When sumoylated, localized in promyelocytic leukemia nuclear bodies (PML NBs). **Tissue Specificity:** Mainly expressed in thymus, spleen, and lymph nodes with a lower level observed in the brain. **Post-translational modifications:** 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. **Similarity:** Belongs to the CUT homeobox family. Contains 2 CUT DNA-binding domains. Contains 1 homeobox DNA-binding domain. **Database links:** **Entrez Gene:** 6304 Human **Entrez Gene:** 20230 Mouse Omim: 602075 Human **SwissProt:** Q01826 Human

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

SunLong Biotech Co.,LTD

Tel: 0086-571-56623320 Fax:0086-571-56623318

E-mail:sales@sunlongbiotech.com

www.sunlongbiotech.com

	SwissProt: Q60611 Mouse **Unigene:** 517717 Human **Unigene:** 311655 Mouse

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.