For Research Use Only

SATB1 Polyclonal antibody

Catalog Number:15400-1-AP Featured Product 9 Publications

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Basic Information

Catalog Number:
15400-1-AP

Size:
150ul , Concentration: 600 ug/ml by Nanodrop and 367 ug/ml by Bradford method using BSA as the standard;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG7615

GenBank Accession Number:
BC001744

GeneID (NCBI):
6304

UNIPROT ID:
Q01826

Full Name:
SATB homeobox 1

Calculated MW:
86 kDa

Observed MW:
86-100 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB: 1:1000-1:8000
IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC: 1:1000-1:4000

Applications

Tested Applications:
WB, IHC, IP, ELISA

Cited Applications:
WB, IP, CoIP, ChIP

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : human brain tissue, HEK-293 cells, mouse brain tissue, mouse spleen tissue, rat brain tissue

IP : HEK-293 cells,

IHC : human oesophagus cancer tissue, human urothelial carcinoma tissue, mouse spleen tissue, mouse thymus tissue, rat brain tissue, rat spleen tissue, rat thymus tissue

Background Information

Epigenetic modifications and dynamic changes in chromatin organization by organizer proteins have recently been shown to play an instrumental role in regulating cancer-promoting genes. Special AT-rich binding protein (SATB1) is a unique type of global regulator that integrates higher-order chromatin organization -withregulation of gene expression. [PMID:23076250,22998183,23121661] SATB1 is a T cell-enriched transcription factor and a chromatin organizer essential for controlling genes that participate in T-cell development and activation. It regulates gene expression by periodically anchoring matrix attachment regions to the nuclear matrix and directly recruiting chromatin-modifying factors. Depending on its posttranslational modifications, SATB1 activates or represses multiple genes.Its expression is regulated by interleukin-4 (IL4) during T helper-2(Th2) cell differentiation[PMID: 20522714]. The calculated molecular weight of SATB1 is 86 kDa, but modified SATB1 is about 100 kDa (PMID: 22879953).

Notable Publications

Author	Pubmed ID	Journal	Application
Sikai Zhan	36274077	Mol Neurobiol	WB
Dongni Zhou	33390772	Int J Med Sci	WB
Jiale Cai	35483515	Pharmacol Res	WB

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
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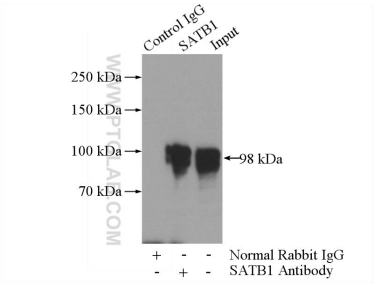
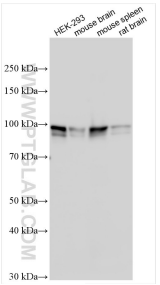
E: proteintech@ptglab.com
W: ptglab.com

Selected Validation Data

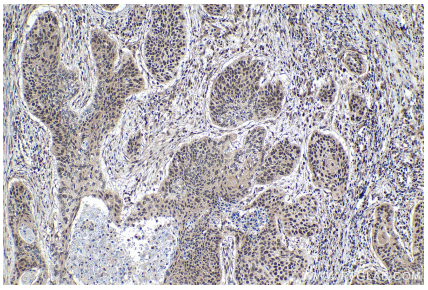
human brain tissue were subjected to SDS PAGE followed by western blot with 15400-1-AP (SATB1 antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



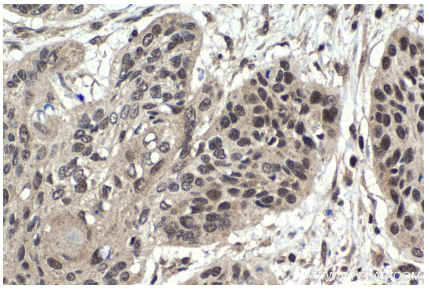
IP result of anti-SATB1 (IP:15400-1-AP, 4ug; Detection:15400-1-AP 1:500) with HEK-293 cells lysate 2000ug.



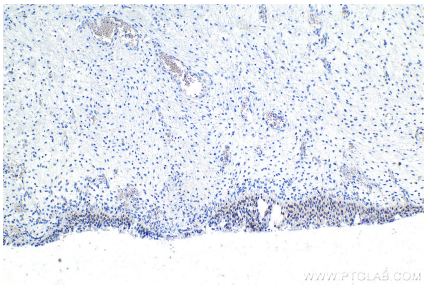
HEK-293 cells were subjected to SDS PAGE followed by western blot with 15400-1-AP (SATB1 antibody) at dilution of 1:40000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human oesophagus cancer tissue slide using 15400-1-AP (SATB1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



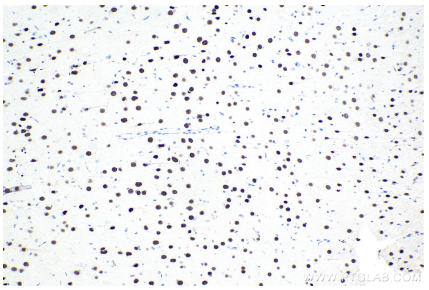
Immunohistochemical analysis of paraffin-embedded human oesophagus cancer tissue slide using 15400-1-AP (SATB1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



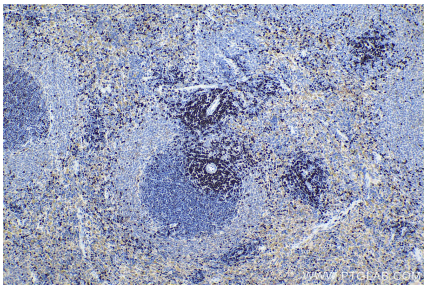
Immunohistochemical analysis of paraffin-embedded human urothelial carcinoma tissue slide using 15400-1-AP (SATB1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

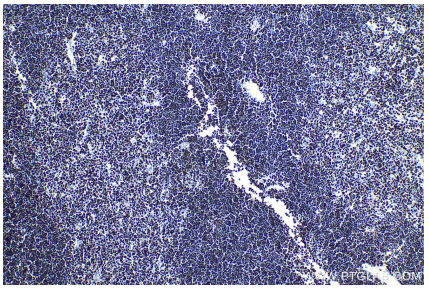
Immunohistochemical analysis of paraffin-embedded mouse spleen tissue slide using 15400-1-AP (SATB1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

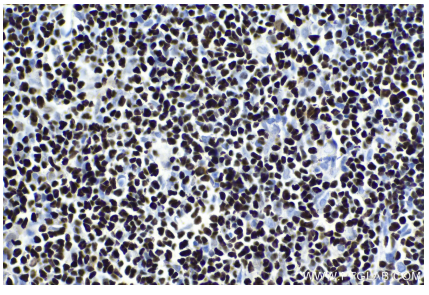
Immunohistochemical analysis of paraffin-embedded mouse thymus tissue slide using 15400-1-AP (SATB1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat brain tissue slide using 15400-1-AP (SATB1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).







Immunohistochemical analysis of paraffin-embedded rat spleen tissue slide using 15400-1-AP (SATB1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

Immunohistochemical analysis of paraffin-embedded rat thymus tissue slide using 15400-1-AP (SATB1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

Immunohistochemical analysis of paraffin-embedded rat thymus tissue slide using 15400-1-AP (SATB1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).