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## SATB2 Rabbit pAb

Catalog Number: bs-11949R

Target Protein: SATB2

Concentration: 1mg/ml

Form: Liquid

Host: Rabbit

Clonality: Polyclonal

Isotype: IgG

Applications: IHC-P (1:100-500), IHC-F (1:100-500), IF (1:100-500), Flow-Cyt (2ug/test)

Reactivity: Human, Mouse, Rat (predicted:Sheep, Cow, Horse)

Predicted MW: 83 kDa

Entrez Gene: 23314

Swiss Prot: Q3ZB87

Source: KLH conjugated synthetic peptide derived from human SATB2: 451-485/733.

Purification: affinity purified by Protein A

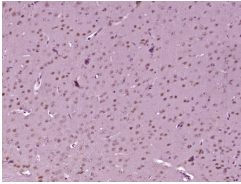
Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

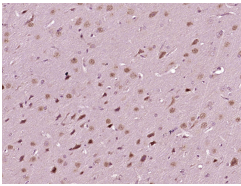
**Background:** SATB2 is a nuclear matrix protein that influences craniofacial formation mechanisms, such as jaw and palate development, and is part of a transcriptional network regulating skeletal development and osteoblast differentiation. Highly expressed in adult and fetal brain, SATB2 contains two CUT DNA-binding domains and one homeobox domain and is closely related to SATB1, a transcriptional repressor. SATB2 is thought to bind to matrix-attachment regions (MARs) and regulate MAR-dependent transcription of various genes, including HoxA2 and ATF4 (CREB-2), involved in skeletal development. Functioning as both a transcriptional activator and repressor, SATB2 can also act as a protein scaffold that can enhance the activity of other DNA-binding proteins. Defects in the gene encoding SATB2 are the cause of cleft palate manifested in conjunction with severe mental retardation.

### VALIDATION IMAGES

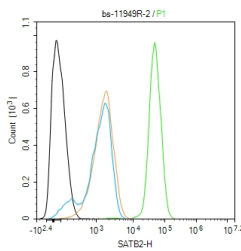
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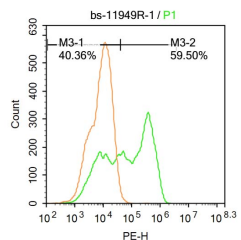
Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SATB2) Polyclonal Antibody, Unconjugated (bs-11949R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SATB2) Polyclonal Antibody, Unconjugated (bs-11949R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control (black line) :K562. Primary Antibody (green line): Rabbit Anti-SATB2 antibody (bs-11949R) Dilution:2ug/Test; Secondary Antibody (white blue line) : Goat anti-rabbit IgG-AF488 Dilution: 0.5ug/Test. Isotype control (orange line) : Normal Rabbit IgG Protocol The cells were fixed with 4% PFA (10min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C, The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



U-937 cells were fixed with 4% PFA for 10min at room temperature, permeabilized with 90% ice-cold methanol for 20 min at room temperature, and incubated in 5% BSA blocking buffer for 30 min at room temperature. Cells were then stained with SATB2 Antibody (bs-11949R) at 1:100 dilution in blocking buffer and incubated for 30 min at room temperature, washed twice with 2%BSA in PBS, followed by secondary antibody incubation for 40 min at room temperature. Acquisitions of 20,000 events were performed. Cells stained with primary antibody (green), and isotype control (orange).

## PRODUCT SPECIFIC PUBLICATIONS

**[IF=10.6]** Lei Li-Min. et al. Cold exposure-induced plasma exosomes impair bone mass by inhibiting autophagy. J NANOBIOTECHNOL. 2024 Dec;22(1):1-21 WB ; Mouse . 38910236

**[IF=2.513]** Cheng JN et al. Skeletal impact of 17β-estradiol in T cell-deficient mice: age-dependent bone effects and osteosarcoma formation. Clin Exp Metastasis. 2019 Dec 20. IHC ; Mouse . 31863240