

SATB2 (E4N4A) Rabbit mAb

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Applications: W, IP	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 100	Source/Isotype: Rabbit IgG	UniProt ID: #Q9UPW6	Entrez-Gene Id: 23314
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

SATB2 (E4N4A) Rabbit mAb recognizes endogenous levels of total SATB2 protein. This antibody does not cross-react with SATB1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding His278 of human SATB2 protein.

Background

Special AT-rich binding protein 2 (SATB2) is a close homolog to SATB1 that functions as a transcription factor. It binds to nuclear matrix attachment regions (MARS); regulatory DNA sequences important for chromatin structure. SATB2 was initially identified when bound to the MARS of the immunoglobulin µ gene in pre-B cells, enhancing its expression (1). SATB2 plays a role in osteoblast differentiation by repressing the HoxA2 gene and enhancing the activity of Runx2 and ATF4 (2). SATB2 also plays a role in the developing cerebral cortex by changing chromatin structure surrounding the Ctip2 regulatory regions (3). In erythroid cells, SATB2 activates the γ-globin locus by recruiting PCAF and reordering the chromatin structure (4). Downregulation of SATB2 is linked to colorectal cancer and head and neck squamous carcinomas (5,6).

Background References

1. Dobrev, G. et al. (2003) *Genes Dev* 17, 3048-61.
2. Dobrev, G. et al. (2006) *Cell* 125, 971-86.
3. Alcamo, E.A. et al. (2008) *Neuron* 57, 364-77.
4. Zhou, L.Q. et al. (2012) *J Biol Chem* 287, 30641-52.
5. Wang, S. et al. (2009) *J Pathol* 219, 114-22.
6. Liu, T.R. et al. (2012) *PLoS One* 7, e40704.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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