Antibodies

Anti-Human SATB2 Antibody

Rabbit polyclonal antibody
against human SATB2, unconjugated

Catalog #100-1346

200 µL

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Product Description

This rabbit polyclonal antibody reacts with human special AT-rich DNA binding protein 2 (SATB2) from the SATB family of small novel transcription factors. SATB family potentiates its function by binding to nuclear matrix-attachment regions (MARs) to induce transcription in multiple genes. It also has functions in regulating chromatin tissue-specific organization. As a regulator of various gene regulatory networks, SATB2 is critical in multiple development processes, with the functional loss of SATB2 being implicated in developmental deficiencies, such as craniofacial defects. SATB2 has also been implicated in colorectal cancer via the induction of malignant transformation of cells into colorectal cancer stem cells, promoted by the expression of stem cell markers and transcription factors.

Target Antigen Name:	SATB2
Alternative Names:	GLSS
Gene ID:	23314
Species Reactivity:	Human
Host Species:	Rabbit
Clonality:	Polyclonal
Clone:	Not Applicable
Isotype:	Not Applicable
Immunogen:	E. coli-derived human SATB2 fragment
Conjugate:	Unconjugated

Applications

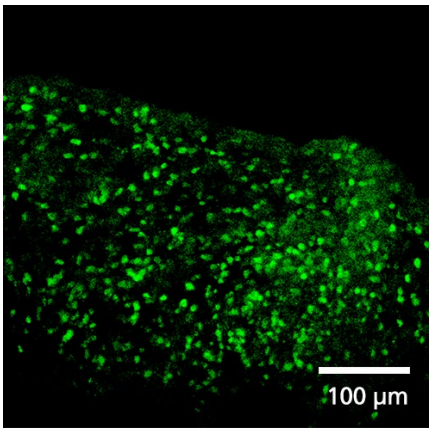
Verified:	ICC/IF
Special Applications:	This antibody clone has been verified for labeling SATB2-positive cortical neurons in human pluripotent stem cell (hPSC)-derived cerebral organoids generated with STEMdiff™ Cerebral Organoid Kit (Catalog #08570) and STEMdiff™ Cerebral Organoid Maturation Kit (Catalog #08571).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IHC-P: Immunohistochemistry (paraffin-embedded); IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered saline, pH 7.0, containing 0.03% ProClin™ 300
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at -20°C when stored undiluted. Avoid repeated freeze-thaw cycles. Stable until expiry date (EXP) on label.
Directions for Use:	The suggested use of this antibody is: ICC/IF, 2 µg/mL. It is recommended that the antibody be titrated for optimal performance for each application. For antibody concentration, refer to the lot-specific Certificate of Analysis at www.stemcell.com/coa.

Data



hPSC-derived cerebral organoids were generated using STEMdiff™ Cerebral Organoid Kit and STEMdiff™ Cerebral Organoid Maturation Kit. Fixed and cryosectioned samples were antigen retrieved and then labeled with Anti-Human SATB2 Antibody, followed by Goat Anti-Rabbit IgG (H+L) Antibody, Polyclonal, iFluor™ 488 (green) (Catalog #100-1082).

Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies, or contact us at techsupport@stemcell.com.

References

1. Yu W et al. (2017) SATB2/β-catenin/TCF-LEF pathway induces cellular transformation by generating cancer stem cells in colorectal cancer. Scientific Reports 7(1): 1–13.

2. Britanova O et al. (2006) Satb2 haplo insufficiency phenocopies 2q32-q33 deletions, whereas loss suggests a fundamental role in the coordination of jaw development. The American Journal of Human Genetics 79(4): 668–78.

3. Zarate YA & Fish JL. (2017) SATB2-associated syndrome: Mechanisms, phenotype, and practical recommendations. American Journal of Medical Genetics Part A 173(2): 327–37.

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