iFluor™ 647 Conjugated Anti-SATB2 Antibody [JM52-44]

HA720173F

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	IF-Tissue, FC
Molecular Wt:	Predicted band size: 83 kDa
Clone number:	JM52-44

Description: SATB2 (Special AT-rich sequence-binding protein 2) 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.

Conjugate: iFluor™ 647, Ex: 656nm; Em: 670nm.

Immunogen: Synthetic peptide within Human SATB2 238-287 / 733.

Positive control: Human colon carcinoma tissue, THP-1.

Subcellular location: Nucleus matrix.

Database links: SwissProt: Q9UPW6 Human

Recommended Dilutions:

IF-Tissue	1:200
FC	1:500-1:1,000

Storage Buffer: Preservative: 0.02% Sodium azide Constituents: 30% Glycerol, 1% BSA, 68.98% PBS

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

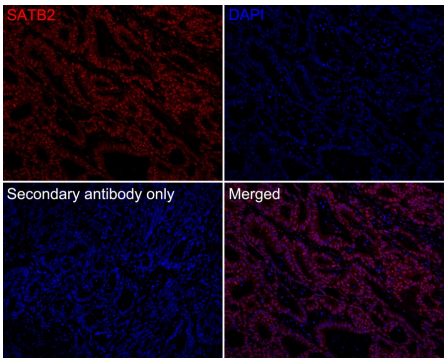

Fig1: Immunofluorescence analysis of paraffin-embedded human colon carcinoma tissue labeling SATB2 (HA720173F).

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS. And then probed with the primary antibody SATB2 (HA720173F, iFluor™ 647) at 1/200 dilution overnight at 4 ℃, washed with PBS. DAPI was used as nuclear counterstain.

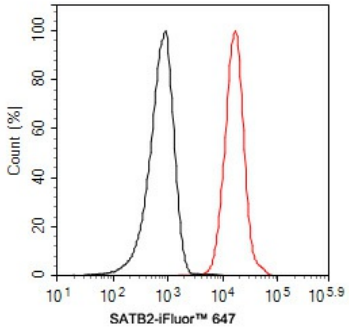

Fig2: Flow cytometric analysis of THP-1 cells labeling SATB2.

Cells were fixed and permeabilized. Then incubated for 1 hour at +4℃ with SATB2 (HA720173F, red, 1ug/ml). Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Mao H et al. Haploinsufficiency for Core Exon Junction Complex Components Disrupts Embryonic Neurogenesis and Causes p53-Mediated Microcephaly. PLoS Genet 12:e1006282 (2016).
2. Jaitner C et al. Satb2 determines miRNA expression and long-term memory in the adult central nervous system. Elife 5.pii: e17361 (2016).