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SATB2 Recombinant Monoclonal Antibody

Product Code	CSB-RA249987A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q9UPW6
Immunogen	A synthesized peptide derived from Human SATB2
Species Reactivity	Human
Tested Applications	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling?Neuroscience
Gene Names	SATB2
Clone No.	3B12

Image



IHC image of CSB-RA249987A0HU diluted at 1:50 and staining in paraffin-embedded human rectal cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.68% DAB.

Description

In efforts to develop a recombinant monoclonal antibody specific to SATB2, the initial step involved the immunization of a rabbit with a synthesized peptide derived from human SATB2 protein. Following immunization, B cells were isolated from the rabbit, and RNA was extracted from these cells. The extracted RNA was reverse-transcribed into cDNA, which served as a template for extending SATB2 antibody genes using degenerate primers. These engineered SATB2 antibody genes were then integrated into a plasmid vector and introduced into host cells for expression. Subsequently, the SATB2 recombinant

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monoclonal antibody was isolated from the cell culture supernatant via affinity chromatography and assessed for its suitability in ELISA and IHC applications. It only shows reactivity with human SATB2 protein.

SATB2 is a multifunctional protein that plays crucial roles in development, cell differentiation, and gene regulation. Its functions are particularly important in craniofacial development, bone formation, neuronal development, and the maintenance of chromatin structure. Dysregulation of SATB2 can have significant implications for health and development.