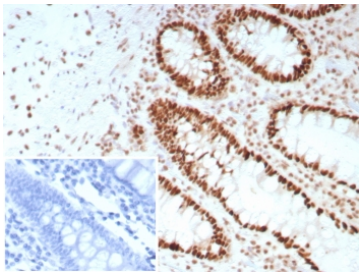
SATB2 Antibody Rabbit Monoclonal [clone SATB2/8697R] (V4895)

Catalog No.	Formulation	Size
V4895-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4895-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4895SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

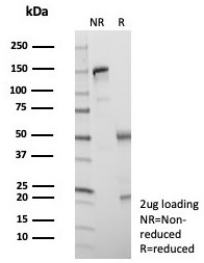
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	SATB2/8697R
Purity	Protein A/G affinity
UniProt	Q9UPW6
Localization	Nucleus
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western blot: 2-4ug/ml
Limitations	This SATB2 antibody is available for research use only.



SATB2 Antibody Rabbit Monoclonal Colon Carcinoma IHC. Immunohistochemistry of SATB2 antibody in FFPE human colon carcinoma tissue. The rabbit monoclonal SATB2 antibody (clone SATB2/8697R) demonstrates strong nuclear staining in malignant glandular epithelial cells, consistent with SATB2 expression in colorectal epithelium. Adjacent stromal elements show minimal to no staining. The negative control inset shows tissue treated with PBS in place of the primary antibody, confirming absence of non-specific secondary antibody binding. Heat-induced epitope retrieval was performed by boiling sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to staining.



SDS-PAGE analysis of purified, BSA-free SATB2 antibody (clone SATB2/8697R) as confirmation of integrity and purity.

Description

SATB2 Antibody Rabbit Monoclonal (clone SATB2/8697R) recognizes Special AT-rich sequence-binding protein 2, a nuclear transcription factor encoded by the SATB2 gene on chromosome 2q33.1. SATB2 functions as a genome organizer that binds specific AT-rich DNA elements and anchors chromatin to the nuclear matrix, thereby coordinating higher-order chromatin structure with transcriptional regulation. The protein contains two CUT domains and a homeodomain that mediate DNA binding and recruitment of transcriptional complexes. SATB2 localizes predominantly to the nucleus, where it typically exhibits a granular or network-like staining pattern consistent with its role in chromatin remodeling and spatial genome organization.

SATB2 plays a critical role in embryonic development, particularly in corticogenesis, craniofacial formation, and osteoblast differentiation. In the developing brain, SATB2 regulates neuronal subtype identity and projection patterns. In skeletal tissues, it contributes to osteogenic gene expression programs and bone formation. In adult tissues, SATB2 expression is most prominent in epithelial cells of the lower gastrointestinal tract, especially colorectal mucosa, where it supports maintenance of regional epithelial identity and differentiation. Pathogenic variants in SATB2 are associated with developmental disorders characterized by craniofacial anomalies and neurodevelopmental delay.

In translational and pathology research settings, SATB2 is widely investigated as a nuclear marker of colorectal epithelial origin. Strong nuclear expression is frequently observed in colorectal adenocarcinomas and may assist in distinguishing tumors of colorectal lineage from other adenocarcinomas in research applications. SATB2 expression has also been described in osteogenic tumors and select lower gastrointestinal neoplasms, reflecting its tissue-restricted developmental functions.

As a rabbit monoclonal antibody, clone SATB2/8697R is designed to recognize a specific epitope on the SATB2 protein, supporting precise and reproducible nuclear detection. Monoclonal specificity may enhance signal clarity and reduce non-specific background staining in formalin-fixed, paraffin-embedded tissues and other experimental samples. SATB2 antibody rabbit monoclonal SATB2/8697R is suitable for detecting nuclear SATB2 expression in studies focused on colorectal biology, neuronal development, skeletal differentiation, and chromatin organization mechanisms.

Researchers investigating colorectal tumor markers, epithelial lineage determination, and chromatin-associated transcriptional regulation may also be interested in our SATB2 Antibody / Colorectal and Lineage Marker page featuring validated immunohistochemistry and western blot applications for colorectal pathology research.

Application Notes

Optimal dilution of the SATB2 antibody should be determined by the researcher.

Immunogen

A synthetic peptide corresponding to human SATB2 protein (within amino acids 200-300) was used as the immunogen for the SATB2 antibody rabbit monoclonal SATB2/8697R.

Storage

Aliquot the SATB2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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