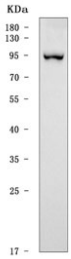
SATB2 Antibody Rabbit Polyclonal / Special AT-rich sequence-binding protein 2 (RQ7324)

Catalog No.	Formulation	Size
RQ7324	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q9UPW6
Applications	Western Blot : 0.5-1ug/ml
Limitations	This SATB2 antibody is available for research use only.



SATB2 Antibody HEL Cell WB. Western blot testing of human HEL cell lysate with SATB2 antibody rabbit polyclonal. Predicted molecular weight ~83 kDa but commonly observed at up to ~100 kDa.

Description

SATB2 Antibody Rabbit Polyclonal recognizes Special AT-rich sequence-binding protein 2, a nuclear matrix-associated transcription factor encoded by the SATB2 gene on chromosome 2q33.1. SATB2 is a DNA-binding protein that functions as a chromatin organizer and transcriptional regulator, coordinating higher-order chromatin structure with gene expression control. The protein contains two CUT domains and a homeodomain that enable sequence-specific DNA binding and anchoring of chromatin loops to the nuclear scaffold. SATB2 localizes predominantly to the nucleus, where it exhibits a characteristic granular or network-like staining pattern reflecting its role in chromatin remodeling and

transcriptional regulation.

SATB2 plays an essential role in developmental processes, particularly in cortical neuron differentiation, craniofacial morphogenesis, and osteoblast lineage commitment. During embryogenesis, SATB2 regulates gene networks involved in neuronal projection identity and skeletal patterning. In adult tissues, expression is most prominent in glandular epithelial cells of the lower gastrointestinal tract, especially colorectal mucosa, where it contributes to epithelial differentiation and maintenance of colonic identity. Dysregulation or mutation of SATB2 has been associated with developmental disorders, including SATB2-associated syndrome, characterized by craniofacial abnormalities and neurodevelopmental impairment.

In translational and pathology research settings, SATB2 is frequently studied as a nuclear marker of colorectal epithelial origin. Strong nuclear SATB2 expression is commonly observed in colorectal adenocarcinomas and may assist in distinguishing tumors of colorectal origin from other adenocarcinomas in investigative contexts. SATB2 expression has also been reported in osteoblastic cells and certain bone-related neoplasms, consistent with its established role in osteogenic differentiation pathways and skeletal development.

As a rabbit polyclonal antibody, this reagent recognizes multiple epitopes on the SATB2 protein, which can enhance detection sensitivity across varying fixation and tissue processing conditions. Multi-epitope recognition may support consistent nuclear staining in formalin-fixed, paraffin-embedded specimens and other research samples. SATB2 Antibody Rabbit Polyclonal 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

Amino acids ERMQHVVQLPPEPVQVLHRQQ were used as the immunogen for the SATB2 antibody rabbit polyclonal.

Storage

After reconstitution, the SATB2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.