SATB2 Monoclonal antibody

Catalog Number: 67958-1-Ig

Featured Product   **1 Publications**

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Basic Information

Catalog Number:
67958-1-Ig

Size:
1000 ug/ml

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG17237

GenBank Accession Number:
BC098136

GeneID (NCBI):
23314

UNIPROT ID:
Q9UPW6

Full Name:
SATB homeobox 2

Calculated MW:
733 aa, 83 kDa

Observed MW:
85-100 kDa

Purification Method:
Protein G purification

CloneNo.:
2F8E2

Recommended Dilutions:
WB 1:2000-1:10000
IHC 1:250-1:1000

Applications

Tested Applications:
WB, IHC, ELISA

Cited Applications:
WB

Species Specificity:
human, mouse

Cited Species:
rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HEK-293 cells, SW480 cells, NIH/3T3 cells, fetal human brain tissue, K-562 cells

IHC : human colon tissue, human colon cancer tissue

Background Information

SATB2, also named as KIAA1034, belongs to the CUT homeobox family. SATB2 binds to DNA at nuclear matrix- or scaffold-associated regions. STAB2 recognizes the sugar-phosphate structure of double-stranded DNA. SATB2 is a transcription factor controlling nuclear gene expression, by binding to matrix attachment regions (MARs) of DNA and inducing a local chromatin-loop remodeling. SATB2 acts as a docking site for several chromatin remodeling enzymes and also by recruiting corepressors (HDACs) or coactivators (HATs) directly to promoters and enhancers. It is required for the initiation of the upper-layer neurons (UL1) specific genetic program and for the inactivation of deep-layer neurons (DL) and UL2 specific genes, probably by modulating BCL11B expression. It is a repressor of Ctip2 and regulatory determinant of corticocortical connections in the developing cerebral cortex. SATB2 may play an important role in palate formation. SATB2 acts as a molecular node in a transcriptional network regulating skeletal development and osteoblast differentiation. SATB2 has two isoforms produced by alternative splicing with the MW of 70 kDa and 83 kDa. It can be detected as 85-105 kDa by sumo modification (PMID: 14701874, PMID: 35140581).

Notable Publications

Author	Pubmed ID	Journal	Application
Zhanchao Wang	39624968	Ann Med	WB

Storage

Storage:
Store at -20℃. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
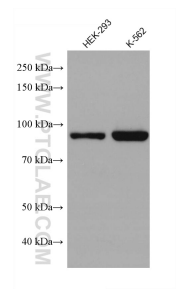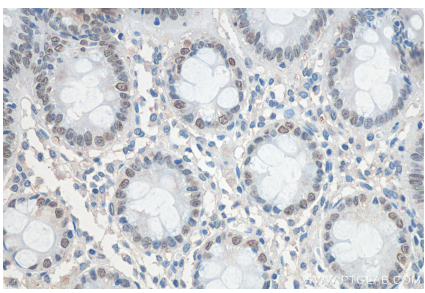Aliquoting is unnecessary for -20°C storage
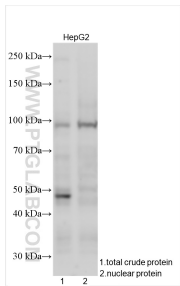
Selected Validation Data

Various lysates were subjected to SDS PAGE followed by western blot with 67958-1-Ig (SATB2 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.
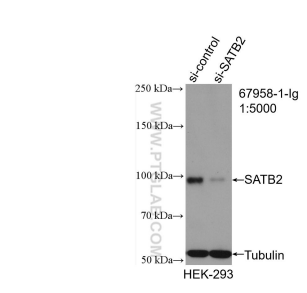

WB result of SATB2 antibody (67958-1-Ig; 1:5000; incubated at room temperature for 1.5 hours) with sh-Control and sh-SATB2 transfected HEK-293 cells.
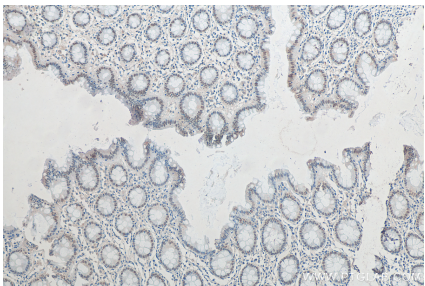

Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 67958-1-Ig (SATB2 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

HepG2 cell lysates and HepG2 nuclear protein were subjected to SDS PAGE followed by western blot with 67958-1-Ig (SATB2 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.
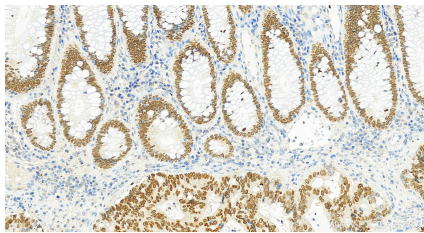
Immunohistochemical analysis of paraffin-embedded human colon cancer slide using 67958-1-Ig (SATB2 antibody) at dilution of 1:1000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 67958-1-Ig (SATB2 antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).