For Research Use Only

## SATB2 Monoclonal antibody, PBS Only (Capture)

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**Purification Method:** 

CloneNo.:

2F8E2

Protein G purification

Catalog Number: 67958-1-PBS

**Featured Product** 

**Basic Information** 

Catalog Number: GenBank Accession Number:

67958-1-PBS BC098136

Size: GeneID (NCBI): 100ug , Concentration: 1mg/ml by 23314

Nanodrop; UNIPROT ID:
Source: Q9UPW6
Mouse

Mouse Full Name:

Isotype: SATB homeobox 2

IgG1 Calculated MW:

Immunogen Catalog Number: 733 aa, 83 kDa

Observed MW: 85-100 kDa

**Applications** 

**Tested Applications:** 

AG17237

WB, IHC, Cytometric bead array, Indirect ELISA

Species Specificity: human, mouse

**Product Information** 

67958-1-PBS targets SATB2 as part of a matched antibody pair:

MP50682-1: 67958-1-PBS capture and 67958-2-PBS detection (validated in Cytometric bead array)

Unconjugated mouse monoclonal antibody pair in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

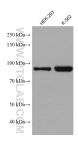
## **Background Information**

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).

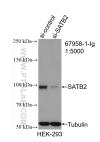
Storage

Storage: Store at -80°C. Storage Buffer: PBS Only

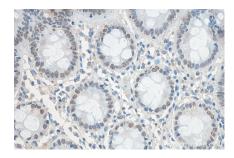
## Selected Validation Data



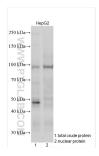
Various lysates were subjected to SDS PAGE followed by western blot with 67958-1-lg (SATB2 antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 67958-1-PBS in a different storage buffer formulation.



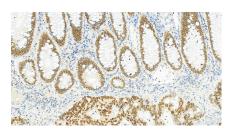
WB result of SATB2 antibody (67958-1-Ig; 1:5000; incubated at room temperature for 1.5 hours) with sh-Control and sh-SATB2 transfected HEK-293 cells. This data was developed using the same antibody clone with 67958-1-PBS in a different storage buffer formulation.



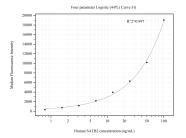
Immunohistochemical analysis of paraffinembedded human colon tissue slide using 67958-1-Ig (SATB2 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67958-1-PBS in a different storage buffer formulation.



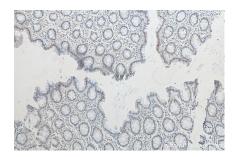
HepG2 cell lysates and HepG2 nuclear protein were subjected to SDS PAGE followed by western blot with 67958-1-Ig (SATB2 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 67958-1-PBS in a different storage buffer formulation



Immunohistochemical analysis of paraffinembedded human colon cancer slide using 67958-1-lg (SATB2 antibody) at dilution of 1:1000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67958-1-PBS in a different storage buffer formulation.



Cytometric bead array standard curve of MP50682-1, SATB2 Monoclonal Matched Antibody Pair, PBS Only. Capture antibody: 67958-1-PBS. Detection antibody: 67958-2-PBS. Standard:Ag17237. Range: 0.781-100 ng/mL



Immunohistochemical analysis of paraffinembedded 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). This data was developed using the same antibody clone with 67958-1-PBS in a different storage buffer formulation.