SATB2 Antibody – Rabbit Monoclonal

PRODUCT OVERVIEW

Product Name	SATB2, Monoclonal Antibody
Full Product Name	SATB2 Monoclonal Antibody
Product Gene Name	anti-SATB2 antibody
Clonality	Monoclonal
Clone Number	YN02235r
Host	Rabbit
Species Reactivity	Human
Preparation and Storage	The RTU should be stored at 2~8 degree C protecting from light (Do not freeze),Valid for 12 months.
Molecular Weight	69,137 Da
OMIM	phenotype 608148
3D Structure	ModBase 3D Structure for Q9UPW6
Product Categories/Family for anti-SATB2 antibody	Pathology Antibodies; Primary Antibodies; Ready-to-Use Antibodies
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-SATB2 antibody	Immunohistochemistry-Paraffin (IHC-P)
Related Product Information for anti-SATB2 antibody	SATB2 is a DNA-binding protein that specifically binds to the nuclear matrix attachment region and is involved in transcriptional regulation and chromatin remodeling, with developmental roles in craniofacial, neural, and osteoblast differentiation. SATB2 protein was highly expressed in brain, digestive tract, bone marrow and immune system, but not in other tissues. SATB2 is highly expressed in colorectal cancer, but weakly or not expressed in other tumors such as gastric adenocarcinoma, lung adenocarcinoma and ovarian cancer. For tumors with unknown primary site, SATB2 positivity suggests the origin of lower gastrointestinal tract. Recent studies have shown that SATB2 is also a marker of osteoblast differentiation and can be used for the identification of osteosarcoma.
Other Notes	Small volumes of anti-SATB2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SATB2 purchase	MBS2580142 is an antibody targeting SATB2. Also known as SATB2 Monoclonal Antibody. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SATB2. It may not necessarily be applicable to this product.

NCBI GI #	13634020
NCBI GeneID	23314
NCBI Accession #	Q9UPW6.2
UniProt Primary Accession #	Q9UPW6
UniProt Secondary Accession #	Q3ZB87; Q4V763; A8K5Z8
UniProt Related Accession #	Q9UPW6

NCBI Official Full Name	DNA-binding protein SATB2
NCBI Official Synonym Full Names	SATB homeobox 2
NCBI Official Symbol	SATB2
NCBI Official Synonym Symbols	GLSS
UniProt Protein Name	DNA-binding protein SATB2
UniProt Synonym Protein Names	Special AT-rich sequence-binding protein 2
Protein Family	DNA-binding protein
UniProt Gene Name	SATB2
UniProt Synonym Gene Names	KIAA1034
UniProt Entry Name	SATB2_HUMAN
NCBI Protein Information	DNA-binding protein SATB2; SATB family member 2; special AT-rich sequence-binding protein 2
NCBI Summary for SATB2	This gene encodes a DNA binding protein that specifically binds nuclear matrix attachment regions. The encoded protein is involved in transcription regulation and chromatin remodeling. Defects in this gene are associated with isolated cleft palate and mental retardation. Alternate splicing results in multiple transcript variants that encode the same protein. [provided by RefSeq, Feb 2010]
UniProt Comments for SATB2	SATB2: Binds to DNA, at nuclear matrix- or scaffold-associated regions. Thought to recognize the sugar-phosphate structure of double-stranded DNA. Transcription factor controlling nuclear gene expression, by binding to matrix attachment regions (MARs) of DNA and inducing a local chromatin-loop remodeling. Acts as a docking site for several chromatin remodeling enzymes and also by recruiting corepressors (HDACs) or coactivators (HATs) directly to promoters and enhancers. 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. Repressor of Ctip2 and regulatory determinant of corticocortical connections in the developing cerebral cortex. May play an important role in palate formation. Acts as a molecular node in a transcriptional network regulating skeletal development and osteoblast differentiation. Chromosomal aberrations involving SATB2 are found in isolated cleft palate. Translocation t(2;7); translocation t(2;11). Defects in SATB2 are a cause of cleft palate isolated (CPI). A congenital fissure of the soft and/or hard palate, due to faulty fusion. Isolated cleft palate is not associated with cleft lips. Some patients may manifest other craniofacial dysmorphic features, mental retardation, and osteoporosis. A chromosomal aberration involving SATB2 is found in a patient with classical features of Toriello-Carey syndrome. Translocation t(2;14)(q33;q22). Belongs to the CUT homeobox family. Protein type: DNA-binding Chromosomal Location of Human Ortholog: 2q33 Cellular Component: nucleoplasm; transcription factor complex; nuclear matrix; cytoplasm; histone deacetylase complex Molecular Function: protein binding; sequence-specific DNA binding; chromatin binding Biological Process: chromatin remodeling; transcription, DNA-dependent; commitment of a neuronal cell to a specific type of neuron in the forebrain; cartilage development; neuron migration; positive regulation of transcription from RNA polymerase II promoter; negative regulation of transcription from RNA polymerase II promoter; palate development; embryonic pattern specification; osteoblast development; embryonic skeletal morphogenesis Disease: Glass Syndrome
Research Articles on SATB2	**1.** SATB2 and SOX9 may be acting together via complex cis-regulation to coordinate the growth of the developing jaw.
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