Mouse anti-SATB2

Cat. No.: BMS068 (16 ml Ready-to-use)

Instructions for use

Intended use

This antibody is designed for the specific localisation of SATB2 in formalin-fixed, paraffin-embedded tissue sections. The antibody is also applicable for immunoprecipitation, immunocytochemistry, western blot and immunohistochemistry on frozen tissue.
Anti-SATB2 antibody is intended for research use only.

Specifications

Specificity:	Human SATB2
Synomym:	SATB homeobox 2, Special AT-Rich Sequence-Binding Protein 2, FLJ21474, KIAA1034, GLSS
Clone:	SATBA4B10
Isotype:	Mouse IgG1
Species reactivity:	Human +, mouse +, rat +, others not tested
Immunogen:	Recombinant protein fragment corresponding to the C-terminus of human SATB2

Summary and Description

Special AT-Rich Sequence-Binding Protein 2 (SATB2) is a transcription factor which can be used for identifying carcinoma of colorectal origin (1,2). SATB2, in combination with CK20, can identify more than 95 % of all colorectal carcinomas (3) including poorly differentiated colorectal carcinomas (4). Lin *et al.* propose including MLH1, Cadherin 17 and SATB2 in a routine immunostaining panel when working on a tumour of unknown primary, especially in an elderly patient with a carcinoma negative for both CK7 and CK20 (4). In addition SATB2 can be helpful in identifying neuroendocrine neoplasms/carcinomas of the left colon and rectum because SATB2 is usually negative in other neuroendocrine neoplasms of the GI tract, pancreas, and lung (2,5)
Recent publications described SATB2 as a sensitive marker for tumours with osteoblastic differentiation (6,7).

Reagent provided

Mouse monoclonal antibody in buffer with carrier protein and preservative for stabilisation in the following format:

Ready-to-use: 16 ml (Cat. No. BMS068)

Dilution of primary antibody

None

Storage and handling

The antibody should be stored at 2-8°C without further dilution.
Dilutions of the concentrated antibody should be done with a suitable antibody dilution buffer (e.g. ZUC025 from Zytomed Systems). The diluted antibody should be stored at 2-8°C after use. Stability of this working solution depends on various parameters and has to be confirmed by appropriate controls. The antibody provided is suitable for use until the expiry date indicated on the label, if stored at 2-8°C. Do not use product after the expiry date.
Positive and negative controls should be run simultaneously with all specimens. If unexpected staining is observed which cannot be explained by variations in laboratory procedures and a problem with the antibody is suspected, contact Zytomed Systems' technical support or your local distributor.

Precautions

Use through qualified personnel only.
Wear protective clothing to avoid contact of reagents and specimens with eye, skin and mucous membranes. If reagents or specimens come in contact with sensitive area, wash with large amounts of water.
Microbial contamination of the reagent must be avoided, since otherwise non-specific staining may occur.
ProClin300 and sodium azide (NaN_3) are used for stabilisation. Reaction of sodium azide with lead or copper in drainage pipes can result in the formation of highly explosive metallic azides. Discard the antibody solution in a large volume of running water to avoid formation of deposits. A material safety data sheet (MSDS) for the pure substances is available upon request.

Staining procedure
Refer to the following table for conditions specifically recommended for this antibody. Also refer to detection system data sheets for guidance on specific staining protocols or other requirements.

Parameters	Zytomed Systems recommendations
*Pre-treatment	Heat Induced Epitope Retrieval (for example in EDTA Buffer pH 9.0 ZUC029)
*Control tissue	Colorectal adenocarcinoma
*Working dilution	None
*Incubation time	30 – 60 minutes

Quality control
The recommended positive control tissues for this antibody are colorectal adenocarcinomas. We recommend carrying out a positive and a negative control with every staining run. Please refer to the instructions of the detection system for guidance on general quality control procedures.

Troubleshooting
If you observe unusual staining or other deviations from the expected results please read these instructions carefully, refer to the instructions of the detection system for relevant information or contact your local distributor.

Expected results
This antibody stains positive in the nuclei in formalin-fixed, paraffin-embedded tissue sections. Further details about the expression pattern of SATB2 can be found in the chapter 'Summary and Description'. Interpretation of the staining results is solely the responsibility of the user. Any experimental result should be confirmed by a medically established diagnostic procedure.

Limitations of the Procedure
Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining, for example variations in fixation and embedding or the inherent nature of the tissue can cause inconsistent results (Nadji and Morales, 1983). Endogenous peroxidase, alkaline phosphatase or biotin may cause non-specific staining depending on the detection system used. Tissues containing Hepatitis B Surface Antigen (HBsAg) may give false positive results with HRP (horse radish peroxidase) detection systems (Omata *et al*, 1980). Inadequate counterstaining and mounting can influence the interpretation of the results.
Zytomed Systems warrants that the product will meet all requirements described from its shipping date until the expiry date is reached, if the product is stored and utilised as recommended. No additional guarantees can be given. Under no circumstances shall Zytomed System be liable for any damages arising out of the use of the reagent provided.

Performance characteristics
Zytomed Systems has conducted studies to evaluate the performance of the antibody for use with a standard detection system. The product has been found to be sensitive and specific to the antigen of interest with minimal or no cross-reactivity.

Bibliography

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Explanations of the symbols on the product label:

REF	Bestellnummer Catalog Number Reference du catalogue		Verwendbar bis Use By Utiliser jusque		Gebrauchsanweisung beachten Consult Instructions for use Consulter les instructions d'utilisation
LOT	Chargenbezeichnung Batch Code Code du lot		Lagerungstemperatur Temperature Limitation Limites de température	RUO	Nur für Forschungszwecke For Research Use Only Pour la recherche uniquement
IVD	In vitro Diagnostikum In Vitro Diagnostic Medical Device Dispositif médical de diagnostic in vitro		Achtung Warning Attention		Hersteller / Manufacturer / Fabricant Zytomed Systems GmbH • Anhaltinerstraße 16 14163 Berlin, Germany • Tel: (+49) 30-804 984 990 www.zytomed-systems.com