


Rabbit anti-human SATB2 (DNA-Binding Protein SATB2) Monoclonal Antibody **(Clone EP281)**

REFERENCES AND PRESENTATIONS¹

- **ready-to-use (ml)**
MAD-000747QD-3
MAD-000747QD-7
MAD-000747QD-12
- **MD-Stainer presentations²**
MAD-000747QD-3/V
MAD-000747QD/V
- **concentrated**
MAD-000747Q - 1:50 recommended dilution

COMPOSITION

Anti-human SATB2 rabbit monoclonal antibody purified from serum and prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide

INTENDED USE : Immunohistochemistry (IHC) on paraffin embedded tissues. Not tested on frozen tissues or Western-Blotting

CLONE: EP281³

Ig ISOTYPE: Rabbit IgG

IMMUNOGEN: A synthetic peptide corresponding to residues of human SATB2 protein.

SPECIES REACTIVITY: In vitro diagnostics in humans. Not tested in other species

DESCRIPTION AND APPLICATIONS:

DNA-binding protein SATB2, also known as Special AT-rich sequence-binding protein 2, is a nuclear matrix-associated transcription factor. SATB2 acts as a docking site for chromatin remodelling enzymes and recruits co-activators and co-repressors to control nuclear gene expression. SATB2 also regulates skeletal development, osteoblast differentiation, and modulates immunoglobulin expression.

In normal tissues, strong nuclear SATB2 expression is observed in essentially all glandular cells lining the lower gastrointestinal tract, including the appendix,



colon, and rectum. SATB2 is also expressed in a subset of neuronal cells from the cerebral cortex and hippocampus. In tumor tissues, SATB2 is detected in cancer cells of colorectal origin and may function as a clinically useful diagnostic marker for colorectal cancer (CRC). In a multi-cohort study with 1882 primary and metastatic CRCs, SATB2 shows high sensitivity (85%) for CRC, and further enhanced to 93% when stained in conjunction with Cytokeratin 20. A recent study showed SATB2 expression in 89% of medullary carcinomas of the large intestine. SATB2 has been suggested as a valuable prognostic marker: high SATB2 expression was determined as an independent marker of good prognosis and sensitivity to chemotherapy and radiation in CRC while loss of SATB2 expression was correlated with poor prognosis in laryngeal carcinoma patients.

IHC POSITIVE CONTROL: Colon for normal tissue and colorectal cancer for abnormal tissue.

VISUALIZATION: Cell nuclei

IHC RECOMMENDED PROCEDURE:

- 4µm thick section should be taken on charged slides; dry overnight at 60°C
- Deparaffinise, rehydrate and HIER (heat induced epitope retrieval) – boil tissue in the Pt Module using Master Diagnóstica EDTA buffer pH8⁴ for 20 min at 95°C. Upon completion rinse with 3-5 changes of distilled or deionised water followed by cooling at RT for 20 min
- Endogenous peroxidase block - Blocking for 10 minutes at room temperature using peroxidase solution (ref. MAD-021540Q-125)
- Primary antibody: incubate for 10 minutes [The antibody dilution (when concentrated) and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by the individual laboratory]
- For detection use Master Polymer Plus Detection System (HRP) (DAB included; ref. MAD-000237QK)
- Counterstaining with haematoxylin and final mounting of the slide

STORAGE AND STABILITY:  up to 18 months;  stored at 2-8°C. Do not freeze.

¹ These references are for presentation in vials of Low Density Polyethylene (LDPE) dropper. In case the products are used in automated stainers, a special reference is assigned as follows:

- / L: Cylindrical screw-cap vials (QD-3 / L, QD-7 / L, QD-12 / L).

- / N: Polygonal screw-cap vials (QD-3 / N, QD-7 / N, QD-12 / N).

For different presentations (references / volumes) please contact the supplier.

² For Technical specifications for MD-Stainer, please contact your distributor.

³ SATB2 clone EP281 is manufactured using Epiteomics's RabMAb® technology under U.S. Patent Nos. 5,675,063 and 7,402,409

⁴ Ref: MAD-004072R/D



WARNINGS AND PRECAUTIONS:

1. Avoid contact of reagents with eyes and mucous membranes. If reagents come into contact with sensitive areas, wash with copious amounts of water.
2. This product is harmful if swallowed.
3. Consult local or state authorities with regard to recommended method of disposal.
4. Avoid microbial contamination of reagents.

SAFETY RECOMMENDATIONS

This product is intended for laboratory professional use only. The product is NOT intended to be used as a drug or for domestic purposes. The current version of the Safety Data Sheet for this product can be downloaded by searching the reference number at www.vitro.bio or can be requested at regulatory.md@vitro.bio.

BIBLIOGRAPHY

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