

## Overview

### Useful For

Identification of colorectal carcinoma and rectal neuroendocrine tumors

### Testing Algorithm

[For the initial technical component only immunohistochemical \(IHC\) stain performed, the appropriate bill-only test ID will be reflexed and charged \(IHTOI\). For each additional technical component only IHC stain performed, an additional bill-only test ID will be reflexed and charged \(IHTOA\).](#)

### Reflex Tests

Test Id	Reporting Name	Available Separately	Always Performed
IHTOI	IHC Initial, Tech Only	No	No
IHTOA	IHC Additional, Tech Only	No	No

### Method Name

Immunohistochemistry (IHC)

### NY State Available

Yes

## Specimen

### Specimen Type

TECHONLY

### Ordering Guidance

[This test includes only technical performance of the stain \(no pathologist interpretation is performed\). If diagnostic consultation by a pathologist is required order PATHC / Pathology Consultation.](#)

### Shipping Instructions

Attach the green pathology address label and the pink Immunostain Technical Only label included in the kit to the outside of the transport container.

### Specimen Required

**Supplies:** Immunostain Technical Only Envelope (T693)

**Specimen Type:** Tissue

**Preferred:** 2 Unstained positively charged glass slide (25- x 75- x 1-mm) per test ordered; sections 4-microns thick.

**Acceptable:** Formalin-fixed, paraffin-embedded (FFPE) tissue block

## Digital Image Access

1. Information on accessing digital images of IHC stains and the manual requisition form can be accessed through this website: <https://news.mayocliniclabs.com/ihc-stains/>
2. Clients ordering stains using a manual requisition form will not have access to digital images.
3. Clients wishing to access digital images must place the order for IHC stains electronically. Information regarding digital imaging can be accessed through this website: <https://news.mayocliniclabs.com/ihc-stains/#FAQ>

## Forms

If not ordering electronically, complete, print, and send a [Immunohistochemical \(IHC\)/In Situ Hybridization \(ISH\) Stains Request](#) (T763) with the specimen.

## Reject Due To

Wet/frozen tissue                      Reject  
 Cytology smears  
 Nonformalin fixed tissue  
 Nonparaffin embedded tissue  
 Noncharged slides  
 ProbeOn slides

## Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
TECHONLY	Ambient (preferred)		
	Refrigerated		

## Clinical & Interpretive

### Clinical Information

Special AT-rich sequence binding protein 2 (SATB2) is a transcription factor that regulates gene expression through chromatin remodeling. SATB2, when used in combination with the marker Keratin 20, may identify more than 95% of colorectal carcinoma. It may also be used to differentiate rectal neuroendocrine tumors from other neuroendocrine tumors of the gastrointestinal tract.

### Interpretation

This test includes only technical performance of the stain (no pathologist interpretation is performed). If diagnostic

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consultation by a pathologist is required order PATHC / Pathology Consultation.

The positive and negative controls are verified as showing appropriate immunoreactivity. If a control tissue is not included on the slide, a scanned image of the relevant quality control tissue is available upon request; contact 855-516-8404.

Interpretation of this test should be performed in the context of the patient's clinical history and other diagnostic tests by a qualified pathologist.

**Cautions**

Age of a cut paraffin section can affect immunoreactivity. Stability thresholds vary widely among published literature and are antigen-dependent. Best practice is for paraffin sections to be cut within 6 weeks.

**Clinical Reference**

1. Berg KB, Schaeffer DF: SATB2 as an Immunohistochemical Marker for Colorectal Adenocarcinoma, A concise Review of Benefits and Pitfalls. Arch Pathol Lab Med 2017;141(10):1428-1433
2. Davis JL, Horvai AE: Special AT-rich sequence-binding protein 2 (SATB2) expression is sensitive but may not be specific for osteosarcoma as compared with other high-grade primary bone sarcomas. Histopathology 2016;69(1):84-90
3. Dragomir A, de Wit M, Johansson C, et al: The role of SATB2 as a diagnostic marker for tumors of colorectal origin. Am J Clin Pathol 2014;141(5):630-638
4. Magnusson K, de Wit M, Brennan DJ, et al: SATB2 in combination with cytokeratin 20 identifies over 95% of all colorectal carcinoma. Am J Surg Pathol 2011;35(7):937-948

**Performance****Method Description**

Immunohistochemistry on sections of paraffin-embedded tissue.(Unpublished Mayo method)

**PDF Report**

No

**Specimen Retention Time**

Until staining is complete

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**Performing Laboratory Location**

Rochester

**Fees & Codes****Test Classification**

This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

**CPT Code Information**

88342-TC, primary

88341-TC, if additional IHC

**LOINC® Information**

Test ID	Test Order Name	Order LOINC Value
SATB2	SATB2 IHC, Tech Only	Order only;no result

  

Result ID	Reporting Name	LOINC®
607601	SATB2 IHC, Tech Only	Bill only; no result