

## Overview

### Useful For

Classification of thyroid carcinomas

### Reflex Tests

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

### 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).

### 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

**Container/Tube:** Immunostain Technical Only Envelope

**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

[Mayo Clinic is preparing to migrate to a new slide scanning solution and will need to temporarily suspend digital imaging for tech-only IHC/ISH orders received after June 17. We will send a follow-up notification by September 1st indicating when digital imaging resumes. We appreciate your patience as we improve our digital imaging solution.](#)

### 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 Cytology smears Nonformalin fixed tissue Nonparaffin embedded tissue Noncharged slides ProbeOn slides	Reject
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### Specimen Stability Information

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

## Clinical & Interpretive

### Clinical Information

This mesothelial cell (HBME-1) antibody stains an unknown antigen in the microvillous processes of mesothelial cells with a "thick membrane" staining pattern. The antibody also reacts with a wide variety of normal and neoplastic tissues. This stain is diagnostically useful in distinguishing thyroid carcinoma (papillary and follicular types) from thyroid follicular adenomas, which usually lack staining.

### Reference Values

N/A

### Interpretation

This test does not include pathologist interpretation, only technical performance of the stain. If interpretation is required order PATHC / Pathology Consultation for a full diagnostic evaluation or second opinion of the case.

The positive and negative controls are verified as showing appropriate immunoreactivity and documentation is retained at Mayo Clinic Rochester. If a control tissue is not included on the slide, a scanned image of the relevant quality control

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tissue is available upon request; call 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. de Matos LL, Del Giglio AB, Matsubayashi CO, de Lima Farah M, Del Giglio A, da Silva Pinhal MA: Expression of CK-19, galectin-3 and HBME-1 in the differentiation of thyroid lesions: systematic review and diagnostic meta-analysis. *Diagn Pathol.* 2012 Aug 13;7:97
2. Rossi ED, Straccia P, Palumbo M, et al: Diagnostic and prognostic role of HBME-1, galectin-3, and beta-catenin in poorly differentiated and anaplastic thyroid carcinomas. *Appl Immunohistochem Mol Morphol.* 2013;21(3):237-241
3. Liu Z, Li X, Shi L, et al: Cytokeratin 19, thyroperoxidase, HBME-1 and galectin-3 in evaluation of aggressive behavior of papillary thyroid carcinoma. *Int J Clin Exp Med.* 2014 Aug 15;7(8):2304-2308

**Performance****Method Description**

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

**PDF Report**

No

**Day(s) Performed**

Monday through Friday

**Report Available**

1 to 3 days

**Specimen Retention Time**

Until staining is complete.

**Performing Laboratory Location**

Rochester

**Fees & Codes****Fees**

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- Authorized users can sign in to [Test Prices](#) for detailed fee information.
  - Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
  - Prospective clients should contact their Regional Manager. For assistance, contact [Customer Service](#).

**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
HBME	HBME-1 IHC, Tech Only	Order only;no result

Result ID	Test Result Name	Result LOINC® Value
70765	HBME-1 IHC, Tech Only	Bill only; no result