

Overview

Useful For  
Identification of normal and neoplastic B cells

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: Immunostains Technical Only Envelope  
Preferred: 2 Unstained positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick; B5

fixed, decalcified, paraffin-embedded bone marrow tissue.  
**Acceptable:** B5 fixed, decalcified, paraffin-embedded bone marrow tissue block.

Digital Image Access

- 1. Information on accessing digital images of immunohistochemical (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 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

CD19 is expressed by normal and neoplastic B cells but is not expressed by T cells, monocytes, or granulocytes. CD19 protein appears early during B-cell maturation and is found during all stages of B-cell maturation, including plasma cells. CD19 is useful as an additional marker of B cell lineage in leukemias and lymphomas. Expression of CD19 may be seen in some acute myeloid leukemias.

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**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 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**

This test is optimized for use on B5-fixed, decalcified, paraffin-embedded bone marrow specimens.

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. Masir N, Marafioti T, Jones M, et al. Loss of CD19 expression in B-cell neoplasms. *Histopathology* 2006;48:239-246
2. Kirk CM, Lewin D, Lazarchick J, et al. Primary hepatic B-cell lymphoma of mucosa-associated lymphoid tissue. *Arch Pathol Lab Med* 1999;123:716-719
3. Magaki S, Hojat SA, Wei B, So A, Yong WH. An introduction to the performance of immunohistochemistry. *Methods Mol Biol.* 2019;1897:289-298. doi:10.1007/978-1-4939-8935-5\_25

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**

Mayo Clinic Laboratories - Rochester Main Campus

Fees & Codes

Fees

- 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 account representative. For assistance, contact [Customer Service](#).

Test Classification

This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. It has not been cleared or approved by the US Food and Drug Administration.

CPT Code Information

88342-TC, primary  
88341-TC, if additional IHC

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
C19BM	Bone Marrow CD19 IHC, Tech Only	Order only;no result

Result ID	Test Result Name	Result LOINC® Value
603206	Bone Marrow CD19 IHC, Tech Only	Bill only; no result