

## Overview

### Useful For

A marker of myeloid lineage

### 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

**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

1. Information on accessing digital images of immunohistochemical (IHC) stains and the manual requisition form can be accessed through this website: [www.mayocliniclabs.com/test-info/ihc/index.html](http://www.mayocliniclabs.com/test-info/ihc/index.html)

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: [www.mayocliniclabs.com/test-info/ihc/faq.html](http://www.mayocliniclabs.com/test-info/ihc/faq.html)

## 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

Myeloperoxidase shows strong cytoplasmic immunoreactivity in neutrophilic and eosinophilic granulocytes and their precursors. Virtually all other cell types are negative for myeloperoxidase staining. Antibodies to myeloperoxidase are most useful diagnostically to support myeloid lineage in acute leukemias. These antibodies also facilitate the detection of granulocyte precursors in myeloproliferative disorders and myelodysplastic syndromes.

### 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

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. Chuang SS, Li CY: Useful panel of antibodies for the classification of acute leukemia by immunohistochemical methods in bone marrow trephine biopsy specimens. Am J Clin Pathol. 1997;107(4):410-418. doi: 10.1093/ajcp/107.4.410

2. Li WV, Kapadia SB, Sonmez-Alpan E, Swerdlow SH: Immunohistochemical characterization of mast cell disease in paraffin sections using tryptase, CD68, myeloperoxidase, lysozyme, and CD20 antibodies. *Mod Pathol.* 1996;9(10):982-988
3. Liu W, Hasserjian RP, Hu Y, et al: Pure erythroid leukemia: A reassessment of the entity using the 2008 World Health Organization classification. *Mod Pathol.* 2011;24:375-383. doi: 10.1038/modpathol.2010.194
4. O;Malley DP, Young SK, Perkins SL, Baldrige L, Juliar BE, Orazi A: Morphologic and immunohistochemical evaluation of splenic hematopoietic proliferations in neoplastic and benign disorders. *Mod Pathol.* 2005;18:1550-1561. doi: 10.1038/modpathol.3800480
5. Pileri SA, Ascani S, Milani M, et al: Acute leukaemia immunophenotyping in bone-marrow routine sections. *Br J Hematol.* 1999;105:394-401
6. Gao L, Lu GT, Lu YY, et al: Diabetes aggravates acute pancreatitis possibly via activation of NLRP3 inflammasome in db/db mice. *Am J Transl Res.* 2018 Jul 15;10(7):2015-2025

## Performance

### Method Description

Immunohistochemistry on sections of paraffin-embedded tissue.(Cartun RW, Taylor CR, Dabbs DJ: Techniques of immunohistochemistry: Principles, pitfalls, and standardization. In: Dabbs DJ, ed. *Diagnostic Immunohistochemistry.* 5th ed. Elsevier; 2019:1-46)

### PDF Report

No

### Specimen Retention Time

Until staining is complete.

### 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