

Overview

**Useful For**  
Aiding in the identification of histocytic and myeloid lineage 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
--	--------

Specimen Stability Information

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

Clinical & Interpretive

Clinical Information

In normal tissues, CD68 KP-1 stains the cytoplasm of the granulocytes and myeloid progenitors in the bone marrow, monocytes, and macrophages, and osteoclasts. KP-1 reacts against a carbohydrate moiety of CD68. Although CD68 KP-1 is primarily used as a histiocytic marker, it is not specific for histiocytes. It can also be expressed in malignant melanoma, granular cell tumors, peripheral nerve sheath tumors, malignant fibrous histiocytoma, and other mesenchymal neoplasms and rare carcinomas.

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. 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

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. Sanchez-Espiridion B, Martin-Moreno AM, Montalban C, et al: Immunohistochemical markers for tumor associated macrophages and survival in advanced classical Hodgkin's lymphoma. Haematologica. 2012 Jul;97:1080-1084
2. Tan KL, Scott DW, Hong F, et al: Tumor-associated macrophages predict inferior outcomes in classic Hodgkin lymphoma: a correlative study from the E2496 Intergroup trial. Blood. 2012 Oct 18;120(16):3280-3287
3. Mehra N, Schnatiwinkel C, Ergon L, et al: Comparison of multiplexed imaging mass cytometry in FFPE tissue to monoplex immunohistochemistry. Tumor Biology. 2018;78(13):3037

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

- 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 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
CDKPB	Bone Marrow CD68(KP1) IHC, T Only	Order only;no result

Result ID	Test Result Name	Result LOINC® Value
603210	Bone Marrow CD68(KP1) IHC, T Only	Bill only; no result