

BAP1 Immunostain, Technical Component
Only

## Overview

#### **Useful For**

As part of a panel of immunostains where loss of staining can be used as a marker of various neoplasms

#### **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**

Specimen Type: Tissue

**Supplies:** Immunostain Technical Only Envelope (T693) **Container/Tube:** Immunostain Technical Only Envelope

**Preferred:** 



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-Formalin-fixed, paraffin-embedded tissue block OR

-2 Unstained, positively charged glass slides (25- x 75- x 1-mm) per test ordered; sections 4-microns thick

Acceptable: None

## **Digital Image Access**

- 1. Information on accessing digital images of immunohistochemical (IHC) stains and the manual requisition form can be accessed through this website: <a href="https://news.mayocliniclabs.com/ihc-stains/">https://news.mayocliniclabs.com/ihc-stains/</a>
- 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: <a href="https://news.mayocliniclabs.com/ihc-stains/#FAQ">https://news.mayocliniclabs.com/ihc-stains/#FAQ</a>

#### **Forms**

If not ordering electronically, complete, print, and send a <u>Immunohistochemical (IHC)/In Situ Hybridization (ISH) Stains</u>
<u>Request</u> (T763) with the specimen.

## **Specimen Minimum Volume**

See Specimen Required

## **Reject Due To**

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

## **Specimen Stability Information**

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

## **Clinical & Interpretive**



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#### Clinical Information

BRCA1-associated protein 1 (BAP1) is a deubiquitinating enzyme that is a member of the polycomb group proteins of transcriptional repressors and exhibits tumor suppressive activity. *BAP1* is located on chromosome 3p21 where loss of one copy of the gene and inactivating mutations are associated with the increased risk and development of various tumors, such as malignant mesotheliomas, uveal melanomas, clear cell renal cell carcinoma, and esophageal squamous carcinomas. In some of these cases, loss of nuclear staining for BAP1 has been reported.

#### 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.

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**

Loss of BAP1 expression as determined by immunohistochemistry will not be able to differentiate between germline and somatic mutation.

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.

The charge of glass slides can be affected by environmental factors and subsequently may alter slide staining. Sending unsuitable glass slides can result in inconsistent staining due to poor slide surface chemistry.

Best practices for storage of positively charged slides:

- -Minimize time slides are stored after being unpackaged
- -Limit exposure to high humidity and heat
- -Minimize exposure to plastics

#### **Clinical Reference**

- 1. Carbone M, Ferris LK, Baumann F, et al. BAP1 cancer syndrome: malignant mesothelioma, uveal and cutaneous melanoma, and MBAITS. J Transl Med 2012;10:179
- 2. Koopmans AE, Verdijk RM, Brouwer RWW, et al. Clinical significance of immunohistochemistry for detection of BAP1 mutations in uveal melanoma. Mod Path 2014;27:1321-1330
- 3. Joseph RW, Kapur P, Serie DJ, et al. Clear cell renal cell carcinoma subtypes identified by BAP1 and PBRM1 Expression. Jl of Urology 2016;195:180-187
- 4. Klebe S, Driml J, Nasu M, et al. BAP1 hereditary cancer predisposition syndrome: a case report and review of literature. Biomark Res 2015;3:14
- 5. Mori T, Sumii M, Fujishima F, et al. Somatic alteration and depleted nuclear expression of BAP1 in human esophageal squamous cell carcinoma. Cancer Sci 2015;106:1118-1129
- 6. Churg A, Sheffield BS, Galateau-Salle F: New markers for separating benign from malignant mesothelials: Are we there yet? Arch Pathol Lab Med 2016;140(4):318-321
- 7. Magaki S, Hojat SA, Wei B, So A, Yong WH. An introduction to the performance of immunohistochemistry. Methods



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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 <u>Test Prices</u> for detailed fee information.
- Clients without access to Test Prices can contact <u>Customer Service</u> 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact <u>Customer Service</u>.

#### **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



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BAP1	BAP1 IHC, Tech Only	Order only;no result
Result ID	Test Result Name	Result LOINC® Value
71488	BAP1 IHC, Tech Only	Bill only; no result