

Overview

**Useful For**  
Identification of breast carcinoma including triple negative breast cancer

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:

- 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: <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 Snowcoat slides	Reject
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Specimen Stability Information

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

Clinical & Interpretive

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**Clinical Information**

Trichorhinophalangeal syndrome type 1 (TRPS1) is a novel transcription factor that functions as a regulator for the growth and differentiation of both normal mammary epithelial cells and breast carcinomas. TRPS1 is a specific and sensitive marker for breast carcinoma, particularly triple negative breast cancers. TRPS1 may be useful in diagnosing primary and metastatic breast 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.

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.

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. Ai D, Yao J, Yang F, et al: TRPS1: a highly sensitive and specific marker for breast carcinoma, especially for triple-negative breast cancer. *Mod Pathol*.2021 Apr;34(4):710-719
2. Chang G, Jhamai M, van Weerden W, et al: The TRPS1 transcription factor: androgenic regulation in prostate cancer and high expression in breast cancer. *Endocr -Relat Cancer*. 2004 Dec; 11(4):815-822
3. Chen J, Litton J, Xiao L, et al: Quantitative immunohistochemical analysis and prognostic significance of TRPS-1, a new GATA transcription factor family member, in breast cancer. *Horm Canc*. 2010 Feb 1;(1):21-33

**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 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
TRPS1	TRPS1 IHC, Tech Only	Bill only; no result

Result ID	Test Result Name	Result LOINC® Value
616891	TRPS1 IHC, Tech Only	Bill only; no result