

Overview

Useful For

Marker for myoepithelium when differentiating ductal carcinomas in situ from infiltrating breast carcinoma

Characterization of tumors of smooth muscle or myoepithelial lineage

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: 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

[Mayo Clinic is preparing to migrate to a new slide scanning solution and will need to temporarily suspend digital imaging for tech-only IHC/ISH orders received after June 17. We will send a follow-up notification by September 1st indicating when digital imaging resumes. We appreciate your patience as we improve our digital imaging solution.](#)

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

Calponin is a cytoskeleton-associated protein that can bind to actin, tropomyosin, troponin C, and calmodulin and is involved in modulation of smooth muscle contraction.

Calponin expression has been demonstrated in smooth muscle cells of blood vessels and myoepithelial cells in the lobules, ducts, and galactophorous sinuses of normal human breast.

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. Russell T D, Jindal S, Agunbiade S, et al: Myoepithelial cell differentiation markers in ductal carcinoma in situ progression. *Am J Pathol.* 2015;185(11):3076-3089. doi: 10.1016/j.ajpath.2015.07.004
2. Gray E, Mitchell, E, Jindal S, Schedin P, Chang YH: A method for quantification of calponin expression in myoepithelial cells in immunohistochemical images of ductal carcinoma in situ. *Proc IEEE Int Symp Biomed Imaging.* 2018 Apr;2018:796-799. doi: 10.1109/isbi.2018.8363692
3. Liu R, Jin JP: Calponin isoforms CNN 1, CNN 2 and CNN 3: Regulators for actin cytoskeleton functions in smooth muscle and non-muscle cells. *Gene.* 2016;585(1):143-153. doi: 10.1016/j.gene.2016.02.040

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**

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- 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 Regional Manager. 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 |
|---------|-------------------------|----------------------|
| CALPN | Calponin IHC, Tech Only | Order only;no result |

| Result ID | Test Result Name | Result LOINC® Value |
|-----------|-------------------------|----------------------|
| 70683 | Calponin IHC, Tech Only | Bill only; no result |