

Overview

Useful For

Characterizing carcinomas, including primary bladder and breast carcinomas, and some types of mesenchymal and neuroectodermal tumors

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

Test Definition: GATAB

GATA-Binding Protein 3 Immunostain,
Technical Component Only, Bone Marrow,

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

GATA-binding protein 3 (GATA3) is a transcription factor of the GATA family. GATA3 is involved in the regulation of development and differentiation of a variety of human tissues including T cells, skin, kidney, mammary gland, and the central nervous system. GATA3 has been shown to be a useful in the characterization of carcinomas, including primary bladder and breast carcinomas, and some types of mesenchymal and neuroectodermal tumors (ie, paragangliomas).

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

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. Chang A, Amin A, Gabrielson E, et al. Utility of GATA3 immunohistochemistry in differentiating urothelial carcinoma from prostate adenocarcinoma and squamous cell carcinomas of the uterine cervix, anus, and lung. *Am J Surg Pathol*. 2012;36(10):1472-1476
2. Gruver AM, Amin MB, Luthringer DJ, et al. Selective immunohistochemical markers to distinguish between metastatic high-grade urothelial carcinoma and primary poorly differentiated invasive squamous cell carcinoma of the lung. *Arch Pathol Lab Med*. 2010;136:1339-1346
3. Higgins JPT, Kaygusuz G, Wange L, et al. Placental S100(S100P) and GATA3: Markers for transitional epithelium and urothelial carcinoma discovered by complementary DNA microarray. *Am J Surg Pathol*. 2007;31(5):673-680
4. Liu H, Shi J, Wilkerson ML, Lin F. Immunohistochemical evaluation of GATA3 expression in tumors and normal tissues. A useful immunomarker for breast and urothelial carcinomas. *Am J Clin Pathol*. 2012;138:57-64
5. Miettinen M, McCue PA, Sarlomo-Rikala M, et al. GATA3: A multispecific but potentially useful marker in surgical pathology. A systematic analysis of 2500 epithelial and nonepithelial tumors. *Am J Surg Pathol*. 2014;38(1):13-22
6. Magaki S, Hojat SA, Wei B, So A, Yong WH. An introduction to the performance of immunohistochemistry. *Methods 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

Test Definition: GATAB

GATA-Binding Protein 3 Immunostain,
Technical Component Only, Bone Marrow,

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 |
|---------|----------------------------------|----------------------|
| GATAB | Bone Marrow GATA3 IHC, Tech Only | Order only;no result |

| Result ID | Test Result Name | Result LOINC® Value |
|-----------|----------------------------------|----------------------|
| 603214 | Bone Marrow GATA3 IHC, Tech Only | Bill only; no result |