



# Test Definition: CXCR3

C-X-C Motif Chemokine Receptor 3 (CXCR3),  
Technical Component Only

## Overview

### Useful For

Classification of T-cell lymphomas

### 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 provided.](#)

Technical component only stains **should not** be ordered with PATHC / Pathology Consultation. If ordered with PATHC, the technical component stains **will be canceled**. Any immunohistochemistry (IHC)/in situ hybridization (ISH) stain performed as a part of the PATHC will be performed at the reviewing pathologist's discretion at an additional charge.

### Shipping Instructions

Attach the green "Attention Pathology" address label (T498) 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

**Submit**

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

**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/pathology/digital-imaging/>
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/pathology/digital-imaging/#section3>

**Reject Due To**

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

**Specimen Stability Information**

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

**Clinical & Interpretive**

**Clinical Information**

About 30% to 50% of peripheral T-cell lymphomas (PTCLs) do not meet diagnostic criteria for an established subtype (not otherwise specified, NOS). Among these PTCL-NOS cases, two molecular subtypes identified by gene expression profiling have been designated as PTCL-GATA3 and PTCL-TBX21. Both molecular subtypes are associated with poor

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clinical outcomes with PTCL-GATA3 having significantly worse overall survival. An immunohistochemistry algorithm assessing TBX21 (T-bet), CXCR3 (C-X-C chemokine receptor type 3), GATA3 (GATA binding protein 3), and CCR4 (C-C motif chemokine receptor 4) exhibits high sensitivity and reproducibility to further classify PTCL-NOS.

**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.

Recommended fixation time is between 6 and 48 hours.

This assay has not been validated on tissues subjected to the decalcification process or use of alternative fixatives for bone and bone marrow specimens or cell blocks.

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. Iqbal J, Wright G, Wang C, et al. Gene expression signatures delineate biological and prognostic subgroups in peripheral T-cell lymphoma. *Blood*. 2014;123(19):2915-2923
2. Wang T, Feldman A, Wada D, et al. GATA-3 expression identifies a high-risk subset of PTCL, NOS with distinct molecular and clinical features. *Blood*. 2014; 123(19):3007-3015
3. Amador C, Greiner TC, Heavican TB, et al. Reproducing the molecular subclassification of peripheral T-cell lymphoma-NOS by immunohistochemistry. *Blood*. 2019;134(24):2159-2170

**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 completed

**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 was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. It has not been cleared or approved by the US Food and Drug Administration.

**CPT Code Information**

88342-TC, Primary

88341-TC, If additional IHC

**LOINC® Information**

| Test ID | Test Order Name      | Order LOINC® Value   |
|---------|----------------------|----------------------|
| CXCR3   | CXCR3 IHC, Tech Only | Order only;no result |

| Result ID | Test Result Name     | Result LOINC® Value  |
|-----------|----------------------|----------------------|
| 623467    | CXCR3 IHC, Tech Only | Bill only; no result |