

## Overview

### Useful For

The detection of specific chromosomal abnormalities in hematologic malignancies

### Reflex Tests

| Test Id | Reporting Name                 | Available Separately | Always Performed |
|---------|--------------------------------|----------------------|------------------|
| HEMMB   | Probe, Each Additional (HEMMF) | No, (Bill Only)      | No               |

### Testing Algorithm

This test includes a charge for the probe application, analysis, and professional interpretation of results for one probe set (2 individual fluorescence in situ hybridization probes). Additional charges will be incurred for all additional probe sets performed.

Appropriate ancillary probes may be performed at consultant discretion to render comprehensive assessment. Any additional probes will have the results included within the final report and will be performed at an additional charge.

### Method Name

Fluorescence In Situ Hybridization (FISH)

### NY State Available

Yes

## Specimen

### Specimen Type

Varies

### Ordering Guidance

**Consult with the laboratory before ordering this test.**

The fluorescence in situ hybridization (FISH) probes to be analyzed must be specified on the request when ordering, otherwise test processing may be delayed in order to determine the intended analysis. **If specific probes are not provided, this test may be canceled by the laboratory.**

If testing paraffin-embedded tissue, bone marrow, or blood specimen for specific nonhematologic malignancies is desired, order MISCF / Miscellaneous Studies Using Chromosome-Specific Probes, FISH. If this test is ordered in this situation, it will be canceled and MISCF ordered and performed as the appropriate test.

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**Necessary Information**

1. **A list of probes requested for analysis is required.**
2. A reason for testing should be submitted with each specimen. The laboratory will not reject testing if this information is not provided, but appropriate testing and interpretation may be compromised or delayed. If this information is not provided, an appropriate indication for testing may be entered by Mayo Clinic Laboratories.
3. A pathology and/or flow cytometry report may be requested by the laboratory to optimize testing and aid in interpretation of results.

**Specimen Required**

Submit only 1 of the following specimens:

**Preferred**

**Specimen Type:** Bone marrow

**Container/Tube:**

**Preferred:** Yellow top (ACD)

**Acceptable:** Green top (heparin) or lavender top (EDTA)

**Specimen Volume:** 2-3 mL

**Collection Instructions:**

1. **It is preferable to send the first aspirate from the bone marrow collection.**
2. Invert several times to mix bone marrow.
3. Send bone marrow specimen in original tube. **Do not aliquot.**

**Acceptable**

**Specimen Type:** Whole Blood

**Container/Tube:**

**Preferred:** Yellow top (ACD)

**Acceptable:** Green top (heparin) or lavender top (EDTA)

**Specimen Volume:** 6 mL

**Collection Instructions:**

1. Invert several times to mix blood.
2. Send whole blood specimen in original tube. **Do not aliquot.**

**Specimen Minimum Volume**

Blood: 2 mL

Bone marrow: 1 mL

**Reject Due To**

All specimens will be evaluated at Mayo Clinic Laboratories for test suitability.

**Specimen Stability Information**

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

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**Clinical & Interpretive****Clinical Information**

Fluorescence in situ hybridization using gene-specific probes and various probe strategies can help characterize chromosome abnormalities in hematologic malignancies for diagnostic, prognostic, and therapeutic purposes.

**Reference Values**

An interpretive report will be provided.

**Interpretation**

A neoplastic clone is detected when the percent of cells with an abnormality exceeds the normal reference range for any given probe.

The absence of an abnormal clone does not rule out the presence of a neoplastic disorder.

**Cautions**

This test is not approved by the US Food and Drug Administration, and it is best used as an adjunct to existing clinical and pathologic information.

Bone marrow is the preferred specimen type for this fluorescence in situ hybridization test. If bone marrow is not available, a blood specimen may be used if there are malignant cells in the blood specimen (as verified by a hematopathologist).

**Clinical Reference**

Swerdlow SH, Campo E, Harris NL, et al, eds.: WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues. IARC Press; 2017

**Performance****Method Description**

This test is performed using commercially available and laboratory-developed probes. For enumeration and break-apart strategy probe sets, 100 interphase nuclei are scored; 200 interphase nuclei are scored when dual-color, dual-fusion fluorescence in situ hybridization probes are used. All results are expressed as the percent abnormal nuclei.(Unpublished Mayo method)

**PDF Report**

No

**Day(s) Performed**

Monday through Friday

**Report Available**

9 to 12 days

## Specimen Retention Time

4 weeks

## Performing Laboratory Location

Rochester

## 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

88271 x 2, 88275, 88291-FISH Probe, Analysis, Interpretation; 1 probe set  
88271 x 2, 88275-FISH Probe, Analysis; each additional probe set (if appropriate)

### LOINC® Information

| Test ID | Test Order Name            | Order LOINC® Value |
|---------|----------------------------|--------------------|
| HEMMF   | Hematologic Specified FISH | In Process         |

| Result ID | Test Result Name       | Result LOINC® Value |
|-----------|------------------------|---------------------|
| 614267    | Result Summary         | 50397-9             |
| 614268    | Interpretation         | 69965-2             |
| 614269    | Result Table           | 93356-4             |
| 614270    | Result                 | 62356-1             |
| GC117     | Reason for Referral    | 42349-1             |
| GC118     | Probes Requested       | 78040-3             |
| GC119     | Specimen               | 31208-2             |
| 614271    | Source                 | 31208-2             |
| 614272    | Method                 | 85069-3             |
| 614273    | Additional Information | 48767-8             |
| 614274    | Disclaimer             | 62364-5             |
| 614275    | Released By            | 18771-6             |