**Reporting Title:** Pediatric ALL (T-cell), FISH
**Performing Location:** Rochester

## Ordering Guidance:

This test is only performed on specimens from patients with T-cell acute lymphoblastic leukemia (T-ALL) who are 30 years of age or younger.
This test is intended for instances when the entire T-ALL fluorescence in situ hybridization (FISH) panel is needed for a pediatric patient.
-If this test is ordered on a patient older than 30 years, this test will be canceled and automatically reordered by the laboratory as TALAF/ T-Cell Acute Lymphoblastic Leukemia/Lymphoma, FISH, Adult, Varies.
-If this test is ordered and the laboratory is informed that the patient is on a Children's Oncology Group (COG) protocol, this test will be canceled and automatically reordered by the laboratory as COGTF / T-Cell Acute Lymphoblastic Leukemia/Lymphoma (ALL), Children's Oncology Group Enrollment Testing, FISH, Varies.
-If BALPF / B-Cell Acute Lymphoblastic Leukemia/Lymphoma (ALL), Pediatric, FISH, Varies testing is ordered concurrently with this test, the laboratory may cancel TALPF and automatically reorder as TALMF / T-Cell Acute Lymphoblastic Leukemia/Lymphoma (ALL), Specified FISH, Varies with the following FISH probes: TLX3/BCL11B, break-apart TRB, break-apart TRAD, MLLT10/PICALM, TAL1/STIL. If an abnormality is identified that would result in reflex testing in TALPF, the same reflex testing will be performed in the TALMF. This cancellation is necessary to avoid duplicate testing. Probes for CDKN2A/D9Z1, ABL1/BCR, break-apart MLL, TP53/D17Z1 will still be performed as part of the pediatric B-ALL FISH panel.
If limited T-cell ALL FISH probes are preferred, order TALMF / T-Cell Acute Lymphoblastic Leukemia/Lymphoma (ALL), Specified FISH, Varies.

At follow-up, conventional cytogenetic studies (CHRBM / Chromosome Analysis, Hematologic Disorders, Bone Marrow) and targeted T-ALL FISH probes can be evaluated based on the abnormalities identified in the diagnostic study. Order TALMF / T-Cell Acute Lymphoblastic Leukemia/Lymphoma (ALL), Specified FISH, Varies and request specific probes or abnormalities.

If the patient clinically relapses, a conventional chromosome study is useful to identify cytogenetic changes in the neoplastic clone or the possible emergence of a new therapy-related myeloid clone.

For patients with T-cell lymphoma, order TLPDF / T-Cell Lymphoma, Diagnostic FISH, Varies.

For testing paraffin-embedded tissue samples from patients with T-cell lymphoblastic lymphoma, order TLBLF / T-Cell Lymphoblastic Leukemia/Lymphoma, FISH, Tissue.

## Additional Testing Requirements:

At diagnosis, conventional cytogenetic studies (CHRBM / Chromosome Analysis, Hematologic Disorders, Bone Marrow) and this fluorescence in situ hybridization (FISH) panel should be performed. If there is limited specimen available, only this FISH test will be performed.

## Shipping Instructions:

Advise Express Mail or equivalent if not on courier service.

## Necessary Information:

1. A reason for testing and a flow cytometry and/or a bone marrow pathology report 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.
2. If the patient has received an opposite sex bone marrow transplant, note this information on the request.

## Specimen Requirements:

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 to 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: Blood
Container/Tube:
Preferred: Yellow top (ACD)
Acceptable: Green top (heparin) or lavender top (EDTA)
Specimen Volume: 6 mL
Collection Instructions: 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

## Forms:

If not ordering electronically, complete, print, and send a Hematopathology/Cytogenetics Test Request (T726) with the specimen.

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

## Ask at Order Entry (AOE) Questions:

| Test ID | Question ID | Description | Type | Reportable |
|---|---|---|---|---|
| TALPF | GC074 | Reason for Referral | Plain Text | Yes |
| TALPF | GC075 | Specimen:<br>• Whole blood ACD<br>• Bone marrow ACD<br>• Whole blood Na Hep<br>• Bone marrow Na Hep<br>• Whole blood EDTA<br>• Bone marrow EDTA | Answer List | Yes |

## Result Codes:

| Result ID | Reporting Name | Type | Unit | LOINC® |
|---|---|---|---|---|
| 609568 | Result Summary | Alphanumeric | | 50397-9 |
| 609569 | Interpretation | Alphanumeric | | 69965-2 |
| 609570 | Result Table | Alphanumeric | | 93356-4 |
| 609571 | Result | Alphanumeric | | 62356-1 |
| GC074 | Reason for Referral | Alphanumeric | | 42349-1 |
| GC075 | Specimen | Alphanumeric | | 31208-2 |
| 609572 | Source | Alphanumeric | | 31208-2 |
| 609573 | Method | Alphanumeric | | 85069-3 |
| 609574 | Additional Information | Alphanumeric | | 48767-8 |
| 609575 | Disclaimer | Alphanumeric | | 62364-5 |
| 609576 | Released By | Alphanumeric | | 18771-6 |

LOINC and CPT codes are provided by the performing laboratory.

## Supplemental Report:

No

## CPT Code Information:

88271x18, 88275x9, 88291x1- FISH Probe, Analysis, Interpretation; 9 probe sets
88271x2, 88275x1-FISH Probe, Analysis; each additional probe set (if appropriate)

## Reflex Tests:

| Test ID | Reporting Name | CPT Units | CPT Code | Always Performed | Orderable Separately |
|---|---|---|---|---|---|
| TALPB | Probe, Each Additional (TALPF) | | | No | No (Bill Only) |

## Reference Values:

An interpretive report will be provided.