

Test Catalog

Diagnostic. Prognostic. Predictive. Predisposition.



High-Grade B-Cell Lymphoma Reflex FISH Panel

Methodology

FISH

Test Description

Probes: MYC (8q24) | MYC/IgH/CEN8 t(8;14)

Reflex Scheme:

- Reflex to BCL2 (18q21) and BCL6 (3q27) if MYC/IgH/CEN8 t(8;14) is positive OR
- Reflex to BCL2 (18q21), BCL6 (3q27), IGK/MYC t(2;8), IGL/MYC t(8;22), and BCL6/MYC t(3;8) if MYC (8q24) is
 positive and MYC/IgH/CEN8 t(8;14) is negative

Disease(s): B-cell lymphoma, double-hit lymphoma, triple-hit lymphoma

Note: This test is available on a global basis. Tech-only clients may order probes individually.

Clinical Significance

The High-Grade B-Cell Lymphoma Reflex Panel differentiates double-hit or triple-hit lymphomas (which have MYC rearrangements together with BCL2 and/or BCL6 rearrangements) from Burkitt lymphoma or diffuse large B-cell lymphoma. Double-hit and triple-hit lymphomas are difficult to classify morphologically without aid of cytogenetics/FISH or IHC, and are associated with an aggressive course. Testing is indicated when B-cell lymphoma patients experience transformation, relapse, or refractory disease. MYC/IgH/CEN8 will confirm heavy chain rearrangement when MYC is rearranged.

IGK/MYC t(2;8), IGL/MYC t(8;22) and BCL6/MYC t(3;8) studies are useful to further subclassify lymphomas that are positive for MYC gene rearrangements, but negative for the most common IGH/MYC translocation. In addition, when both MYC and BCL6 gene rearrangements are present, but no IGH/MYC translocation is identified, these studies may help to differentiate between the double-hit/triple-hit lymphomas (D/T-HL), which have a poor prognosis, and DLBCL with BCL6/IGH translocation, representing a subset of GC B-cell lymphomas distinct from conventional D/T-HL and with better prognosis (so-called "pseudo-double-hit lymphoma").

This reflex panel may be considered a cost-effective alternative to the <u>High-Grade/Large B-Cell Lymphoma FISH Panel</u> when clinical circumstances allow an additional few days for reflex testing if MYC is rearranged.

Specimen Requirements

- Bone Marrow Aspirate: 1-2 mL sodium heparin tube. EDTA tube is acceptable.
- Peripheral Blood: 2-5 mL sodium heparin tube. EDTA tube is acceptable.
- Fresh, Unfixed Tissue: Tissue in RPMI.
- Bone Marrow/ Peripheral Blood Smear or Fresh Tissue Touch Preparation Slides: minimum *3 slides* labeled with specimen type.
 - NOTE: Technically 1 TP is required since MYC would initially be ordered and other probes only reflexed if MYC was positive
- Fluids: Equal parts RPMI to specimen volume
- Fixed Cell Suspension: A client fixed cell suspension may be submitted for testing as long as it is received in 3:1 Methanol:Glacial Acetic Acid.
- Paraffin Block: Paraffin block acceptable.

- Cut Slides: H&E slide (required) plus 4 unstained slides cut at 4 microns.
- Note: Please exclude biopsy needles, blades, and other foreign objects from transport tubes. These can compromise specimen viability and yield, and create hazards for employees.

Storage & Transportation

Refrigerate specimen. Do not freeze. Use cold pack for transport, making sure cold pack is not in direct contact with specimen. For fresh samples: ship same day as drawn whenever possible; specimens <72 hours old preferred.

CPT Code(s)*

88374x2 automated or 88377x2 manual without reflex; with reflex option 1, add 88374x2 automated or 88377x2 manual; with reflex option 2, add 88374x5 automated or 88377x5 manual

New York Approved

Yes

Level of Service

Global

Turnaround Time

3-5 days

Please direct any questions regarding coding to the payor being billed.

^{*}The CPT codes provided with our test descriptions are based on AMA guidelines and are for informational purposes only. Correct CPT coding is the sole responsibility of the billing party.

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