

IGH-MYC Fusion, t(8;14) Rearrangement by FISH

FOR DIAGNOSIS OF BURKITT LYMPHOMA

Disease Overview

- Burkitt lymphoma is a rare form of non-Hodgkin lymphoma of B cells and is closely associated with a t(8;14) translocation.
- Burkitt lymphoma is strongly linked to Epstein-Barr virus (EBV). Direct evidence of EBV infection is present in one out of five patients. More than the involvement of lymph nodes, it is the abdomen that is notably affected in more than 90 percent of children.
- Detection of the *IGH/MYC* translocation t(8;14) is often helpful in establishing a diagnosis and monitoring disease progression.
- The distinction of Burkitt lymphoma from other lymphomas is important and provides prognostic and therapeutically relevant information.

Epidemiology

- Burkitt lymphoma occurs mainly in children. Rare adult cases are associated with immunodeficiency, particularly AIDS.
- There are two broad types of Burkitt lymphoma: sporadic and endemic. There is a very high incidence of this disease in equatorial Africa, where it is labeled endemic Burkitt lymphoma. Disease in other regions of the world is much less common and is called sporadic Burkitt lymphoma.

Indication for Ordering

Patients diagnosed with or suspected of having Burkitt lymphoma based on morphology or immunophenotypic studies.

Additional Ordering Notes

- The biopsy site and fixative used should be provided.
- The submitted sample should contain sufficient viable tumor.

Interpretation

Presence of a t(8;14) translocation strongly supports a diagnosis of Burkitt lymphoma.

Limitations

This method has not been approved for tissue fixed in alcohol-based or non-formalin fixatives.

Methodology

This test uses a commercially available DNA FISH probe.

Related Tests

FISH testing should be performed to confirm a suspected diagnosis of lymphoma. The following tests can be used as an initial screen for lymphoma:

- Leukemia/Lymphoma Phenotyping (Comprehensive—Whole Blood) (0096299)
- Leukemia/Lymphoma Phenotyping (Comprehensive—Bone Marrow) (0095244)
- Leukemia/Lymphoma Phenotyping (Comprehensive—Miscellaneous) (0095243)

Reference

1. Vysis[®] LSI[®] *IGH/MYC/CEP8* Tri-Color, Dual Fusion Translocation Probe (package insert). Des Plaines, IL: Abbott Molecular; 2010.

Test Information

2001538

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For specific collection, transport, and testing information, refer to the ARUP website at www.aruplab.com.

For information on test selection, ordering, and interpretation, refer to ARUP Consult[®] at www.arupconsult.com.

AUTHOR

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