

Chronic Lymphocytic Leukemia Follow Up Phenotyping by Flow Cytometry

*TO MONITOR DISEASE LEVELS OR TREATMENT RESPONSES IN
PATIENTS WITH CLL*

Clinical Background

Chronic lymphocytic leukemia (CLL) is a common mature B-cell lymphoproliferative disorder that usually expresses the CD5 antigen and has other characteristic phenotypic features that can be identified using flow cytometry. A relatively high proportion of older healthy individuals (2-5 percent) have small monoclonal populations of CLL phenotype cells that are of unknown significance.

Indications for Use

This test is intended for monitoring treatment responses or disease levels in patients with well-established diagnoses of CLL and prior comprehensive flow cytometry immunophenotyping studies. In such cases, this test represents a more cost-effective approach than simply repeating the full-flow cytometric analysis. It can also be used to follow levels of CLL phenotype cells that have been previously identified using conventional flow cytometry immunophenotyping studies.

Additional Ordering Notes

A comprehensive Leukemia/Lymphoma Phenotyping test (0095244, 0095243, or 0096299) that demonstrates CLL phenotype cells should

have been performed prior to ordering this test. If the prior flow cytometry studies were not done at ARUP, the report and associated histograms (if possible) should be submitted with the specimen.

Limitations

Results of this test should always be correlated with clinicopathologic and other relevant data and may not be used alone for a diagnosis of CLL.

Methodology

Leukocytes are stained with antibodies specific for CD5, CD19, CD20, CD23, CD38, FMC7, and kappa and lambda light chains, then analyzed using conventional five-color flow cytometry.

References

1. Chiorazzi N, Rai KR, Ferrarini M. Chronic lymphocytic leukemia. *N Engl J Med* 2005;352:804-815.
2. Rawstron AC, Green MJ, Kuzmicki A, et al. Monoclonal B lymphocytes with the characteristics of "indolent" chronic lymphocytic leukemia are present in 3.5 percent of adults with normal blood counts. *Blood* 2002;100:635-639.

Test Information

0093194

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

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