

# Sample Collection for CD57 for Lyme Disease no longer Available via UVM Medical Center



**Michael R. Lewis, MD**  
Division Chief  
Laboratory Medicine  
Phone: 847-2015  
Email: Michael.Lewis@UVMHealth.org

While it has been reported that a decrease in numbers of CD57+ natural killer (NK) cells may be associated with chronic Lyme disease<sup>(1)</sup>, a more recent study has failed to confirm such an association<sup>(2)</sup>. CD57 expression is not consistent across all NK-cells, and the standard approach for quantifying NK-cells involves staining for a combination of positivity for CD16 and/or CD56 together with negativity for CD3. The Centers for Disease Control and Prevention (CDC) lists quantitative CD57 lymphocyte assays as an example of an “unvalidated test” on its list of “laboratory tests that are not recommended” for the diagnosis of Lyme disease<sup>(3)</sup>.

CDC recommends a two-step testing process for establishing a serologic diagnosis of Lyme disease. If the first test (an FDA-licensed antibody screening test) is positive or equivocal, then the second test (a Western blot) is performed<sup>(4)</sup>.

The University of Vermont (UVM) Medical Center follows CDC’s recommended approach<sup>(5)</sup>. While the UVM Medical Center Laboratory has never performed CD57 testing for Lyme disease, patients sometimes present to our phlebotomy sites with requests to have a blood sample drawn for such testing.

Because of the lack of clinical evidence to support CD57 testing for Lyme disease, the UVM Medical Center will no longer collect or process blood samples for such testing.

If you have any questions concerning this change, please contact Dr. Michael Lewis (Michael.Lewis@UVMHealth.org) in the Laboratory.

## REFERENCES

1. Stricker RB, Winger EE. Decreased CD57 lymphocyte subset in patients with chronic Lyme disease. *Immunol Lett* 2001;76:43-48.
2. Marques A, Brown MR, Fleisher TA. Natural killer cell counts are not different between patients with post-Lyme disease syndrome and controls. *Clin Vaccine Immunol* 2009;16:1249-1250.
3. Centers for Disease Control and Prevention (CDC). Lyme disease: Laboratory tests that are not recommended. <http://www.cdc.gov/lyme/diagnostesting/labtest/otherlab/index.html>. Accessed 17 Feb 2016.
4. Centers for Disease Control and Prevention (CDC). Lyme disease: Two-step laboratory testing process. <http://www.cdc.gov/lyme/diagnostesting/labtest/twostep/index.html>. Accessed 17 Feb 2016.
5. Department of Pathology and Laboratory Medicine, University of Vermont Medical Center. Test catalog – Lyme antibody. <http://uvm labs.testcatalog.org/show/LYMAB>. Accessed 17 Feb 2016.

## PATHOLOGY & LABORATORY MEDICINE

111 Colchester Avenue | Mail Stop: 233MP1  
Burlington, Vermont 05401

## PHONE LABORATORY CUSTOMER SERVICE

(802) 847-5121 | (800) 991-2799

## FAX LABORATORY CUSTOMER SERVICE

(802) 847-5905

## WEBSITE

UVM Labs.TestCatalog.org/