

Patient ID <b>SA00057325</b>	Patient Name <b>SAMPLEREPORT, CMVC8</b>	Birth Date <b>1966-06-10</b>	Gender <b>F</b>	Age <b>46</b>
Order Number <b>SA00057325</b>	Client Order Number <b>SA00057325</b>	Ordering Physician <b>Client, Client</b>	Report Notes	
Account Information <b>C7028846 DLMP Rochester</b>		Collected <b>08 May 2013 00:00</b>		

**CMV CD8 T-Cell QN by Flow Cytometry**

**Total CD3 T cells** MCR

1705 cells  
REFERENCE VALUE  
884–5830 x10(3) cells/mL

**Total CD8 T cells** MCR

593 cells  
REFERENCE VALUE  
168–1847 x10(3) cells/mL

**CMV CD8 T cells B7** MCR

2.373 cells

**CMV CD8 T cells B8** MCR

0.000 cells

**CMV CD8 T cells B35** MCR

0.000 cells

**Total CMV CD8 T cells** MCR

2 cells  
REFERENCE VALUE  
0–115 x10(3) cells/mL

**CMV CD8 T cells IFN-g B7** MCR

0.928 cells

**Total CMV CD8 T cells IFN-g** MCR

0.918 cells  
REFERENCE VALUE  
0.028–52.200 x10(3) cells/mL

**CMV CD8 T cells CD107 B7** MCR

1.153 cells

**Total CMV CD8 T cells CD107a/b** MCR

1.167 cells  
REFERENCE VALUE  
0.252–50.700 x10(3) cells/mL

**IFN-gamma expression** MCR

51.6 % CD8 T-Cells Reference Value  
10.3–56.0

**CD107a/b expression** MCR

30.7 % CD8 T-Cells Reference Value  
8.5–49.1

**Interpretation** 1 MCR

Normal total CD8 T cell count. Evaluation for CMV-specific CD8 T cell immunity was performed on all 5 MHC class I alleles tested in this assay (HLA A1, A2, B7, B8 and B35). There was fewer than 2 cells/uL for HLA A1, A2, B8 and B35-specific CMV peptides (pp50, IE-1 and pp65) so functional testing of the allele-specific CMV- CD8 T cells (IFN-gamma and CD107a and b) could not be performed for these class I alleles. However, there were 2 CMV-CD8 T cells/uL for HLA B7 and therefore, functional testing was performed for these alleles and the corresponding pp65 peptide. The total IFN-gamma production and CD107a/b expression for the B7 allele and associated CMV peptide provided a TIC score of 5, which would be consistent with an effective CD8 T cell immune response for only this specific class I allele and CMV peptide. However, an effective immune response

**Performing Site Legend**

Code	Laboratory	Address
MCR	Mayo Clinic Dept. of Lab Med and Pathology	200 First Street SW, Rochester, MN 55905



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to CMV may require a broader antigenic specificity than to a single CMV-specific peptide. It is also quite possible that this individual may possess CMV-specific CD8 T cells, which recognize other CMV epitopes in the context of this MHC class I allele or other MHC molecules not tested in this assay. Normal global CD8 T cell functional immune competence (measurement

of IFN-gamma as a marker of T cell activation, and expression of CD107a/b, cellular degranulation marker) after stimulation with mitogen - PMA and ionomycin. Clinical correlation recommended.

**Received:** 09 May 2013 15:27

**Reported:** 03 Oct 2013 14:33

QA Environment

**Laboratory Notes**

- 1 Analyte Specific Reagent: This test was developed and its performance characteristics determined by Mayo Clinic. It has not been cleared or approved by the U.S. Food and Drug Administration.

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