

Patient ID SAMPLE	Patient Name PATIENT, TEST	Birth Date 1990-08-02	Sex U	Age 33
Order Number SAMPLE	Client Order Number SAMPLE	Ordering Physician SAMPLE	Report Notes Sample Report	
Account Information SAMPLE		Collected 01 Aug 2024 14:52		

CMV CD8 T-Cell QN by Flow Cytometry

Interpretation

1 SDL

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 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.

Total CD3 T cells

SDL

1705 cells

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

Total CD8 T cells

SDL

593 cells

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

CMV CD8 T cells B7

SDL

2.373 cells

CMV CD8 T cells B8

SDL

0.000 cells

CMV D8 T cells B35

SDL

0.000 cells

Total CMV CD8 T cells

SDL

2 cells

REFERENCE VALUE
0–115 x10(3) cells/mL

CMV CD8 T cells IFN-g B7

SDL

0.928 cells

Total CMV CD8 T cells IFN-g

SDL

0.918 cells

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

CMV CD8 T cells CD107 B7

SDL

1.153 cells

Total CMV CD8 T cells CD107a/b

SDL

1.167 cells

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

Performing Site Legend

Code	Laboratory	Address	Lab Director	CLIA Certificate
SDL	Mayo Clinic Laboratories - Rochester Superior Drive	3050 Superior Drive NW, Rochester MN 55905	Nikola Baumann Ph.D.	24D1040592



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IFN-gamma expression	SDL	C107a/b expression	SDL
51.6 % CD8 T-Cells	Reference Value 10.3–56.0	30.7 % CD8 T-Cells	Reference Value 8.5–49.1
		Received: 02 Aug 2024 14:47	Reported: 02 Aug 2024 14:52

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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