MAYO CLINIC
Mayo Medical Laboratories

Test Definition: TCD4

CD4 Count for Immune Monitoring, Blood

Reporting Title: CD4 T-Cell Count
Performing Location: Rochester

Specimen Requirements:

Specimen must arrive within 48 hours of draw. Draw and package specimen as close to shipping time as possible. Ship specimen priority overnight.

Container/Tube: Lavender top (EDTA)
Specimen Volume: 3 mL
Collection Instructions: Send specimen in original tube. Do not aliquot.
Additional Information:
1. Date of draw is required.
2. For serial monitoring, we recommend that specimen draws be performed at the same time of day.

Specimen Type	Temperature	Time
Whole Blood EDTA	Ambient	72 hours

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
3321	CD45 Lymph Count, Flow **Also used by tests: TBNY, CD4NY, TBBS, 800295**	Numeric	thou/mcL	
3316	% CD3 (T Cells) **Also used by tests: 800295, CD4NY, TBBS, TBNY**	Numeric	%	
3319	% CD4 (Helper Cells) **Also used by tests: 800295, CD4NY, TBBS, TBNY**	Numeric	%	
3320	% CD8 (Supp'r Cells) **Also used by tests: 800295, CD4NY, TBNY, TBBS**	Numeric	%	
3322	CD3 (T Cells) **Also used by tests: 800295, CD4NY, TBBS, TBNY**	Numeric	cells/mcL	
3325	CD4 (Helper Cells) **Also used by tests: 800295, CD4NY, TBBS, TBNY**	Numeric	cells/mcL	
3326	CD8 (Supp'r Cells) **Also used by tests: 800295, CD4NY, TBBS, TBNY**	Numeric	cells/mcL	

Result ID	Reporting Name	Type	Unit	LOINC®
3327	H/S Ratio **Also used by tests: 800295, CD4NY, TBNY, TBBS**	Numeric		

Components:

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
Billing only	T-cells total count	1	86359		
Billing only	Absolute CD4/CD8 Count	1	86360		

Reference Values:

T AND B SURFACE MARKER
% T Cells (CD3)
0-2 months: 53-84%*
3-5 months: 51-77%*
6-11 months: 49-76%*
12-23 months: 53-75%*
2-5 years: 56-75%*
6-11 years: 60-76%*
12-17 years: 56-84%*
18-55 years: 59-83%
>55 years: 49-87%
% Helper Cells (CD4)
0-2 months: 35-64%*
3-5 months: 35-56%*
6-11 months: 31-56%*
12-23 months: 32-51%*
2-5 years: 28-47%*
6-11 years: 31-47%*
12-17 years: 31-52%*
18-55 years: 31-59%
>55 years: 32-67%
% Suppressor Cells (CD8)
0-2 months: 12-28%*
3-5 months: 12-23%*
6-11 months: 12-24%*
12-23 months: 14-30%*
2-5 years: 16-30%*
6-17 years: 18-35%*
18-55 years: 12-38%
>55 years: 8-40%

ABSOLUTE COUNTS
CD45 Lymph Count, Flow
0-17 years: 0.66-4.60 thou/mcL
18-55 years: 0.99-3.15 thou/mcL
>55 years: 1.00-3.33 thou/mcL
T Cells (CD3)
0-2 months: 2,500-5,500 cells/mcL*
3-5 months: 2,500-5,600 cells/mcL*
6-11 months: 1,900-5,900 cells/mcL*
12-23 months: 2,100-6,200 cells/mcL*
2-5 years: 1,400-3,700 cells/mcL*
6-11 years: 1,200-2,600 cells/mcL*
12-17 years: 1,000-2,200 cells/mcL*
18-55 years: 677-2,383 cells/mcL
>55 years: 617-2,254 cells/mcL
Helper Cells (CD4)
0-2 months: 1,600-4,000 cells/mcL*
3-5 months: 1,800-4,000 cells/mcL*
6-11 months: 1,400-4,300 cells/mcL*
12-23 months: 1,300-3,400 cells/mcL*
2-5 years: 700-2,200 cells/mcL*
6-11 years: 650-1,500 cells/mcL*
12-17 years: 530-1,300 cells/mcL*
18-55 years: 424-1,509 cells/mcL
>55 years: 430-1,513 cells/mcL
Suppressor Cells (CD8)
0-2 months: 560-1,700 cells/mcL*
3-5 months: 590-1,600 cells/mcL*
6-11 months: 500-1,700 cells/mcL*
12-23 months: 620-2,000 cells/mcL*
2-5 years: 490-1,300 cells/mcL*
6-11 years: 370-1,100 cells/mcL*
12-17 years: 330-920 cells/mcL*
18-55 years: 169-955 cells/mcL
>55 years: 101-839 cells/mcL

LYMPHOCYTE RATIO
H/S ratio: > or =1.0

*Shearer WT, Rosenblatt HM, Gelman RS, et al: Lymphocyte subsets in healthy children from birth through 18 years of age: The Pediatric AIDS Clinical Trials Group P1009 study. J Allergy Clin Immunol 2003;112(5):973-980