

Advanced Diagnostic Laboratories at National Jewish Health

Document No.: IM-013F.002	STANDARD OPERATING PROCEDURE	PAGE 12 OF 19
Title: Lymphocyte Subset Phenotyping		

Lymphocyte Subset Normal Range Chart

A. Pediatric Normal Range Chart

	0	4M	7M	1Y	3Y	7Y	13Y	19Y
%	0 - 3 mos	4 - 6 mos	7 - 11 mos	1 - 2 yrs	3 - 6 yrs	7 - 12 yrs	13 - 18 yrs	>18
CD3	53 - 84	51 - 77	49 - 76	53 - 75	56 - 75	60 - 76	56 - 84	62 - 88
CD3/4	35 - 64	35 - 56	31 - 56	32 - 51	28 - 47	31 - 47	31 - 52	35.3 - 61.1
CD3/8	12 - 28	12 - 23	12 - 24	14 - 30	16 - 30	18 - 35	18 - 35	11.2 - 37.3
CD19	6 - 32	11 - 41	14 - 37	16 - 35	14 - 33	13 - 27	6 - 23	6.3 - 20.0
CD16/56	4 - 18	3 - 14	3 - 15	3 - 15	4 - 19	4 - 17	3 - 22	3.2 - 23.7
Ratio	1.2 - 6.2	1.2 - 6.2	1.2 - 6.2	1.2 - 6.2	1.2 - 6.2	1.2 - 6.2	1.2 - 6.2	1.0 - 3.6
	0	4M	7M	1Y	3Y	7Y	13Y	19Y
Absolutes	0 - 3 mos	4 - 6 mos	7 - 11 mos	1 - 2 yrs	3 - 6 yrs	7 - 12 yrs	13 - 18 yrs	>18
CD3	2500 - 5500	2500 - 5600	1900 - 5900	2100 - 6200	1400 - 3700	1200 - 2600	1000 - 2200	678 - 2504
CD3/4	1600 - 4000	1800 - 4000	1400 - 4300	1300 - 3400	700 - 2200	650 - 1500	530 - 1300	414 - 1679
CD3/8	560 - 1700	590 - 1600	500 - 1700	620 - 2000	490 - 1300	370 - 1100	330 - 920	162 - 1038
CD19	300 - 2000	430 - 3000	610 - 2600	720 - 2600	390 - 1400	270 - 860	110 - 570	96 - 515
CD16/56	170 - 1100	170 - 830	160 - 950	180 - 920	130 - 720	100 - 480	70 - 480	45 - 523

	1 year	2-3 years	4-5 years	6-10 years	11-18 years
CD20 %	17.5-39.5	15.7 - 35.6	11 - 26	7.7 - 24.3	7.1 - 23.8
CD20 absolutes	773 -1990	529 -1930	323 -1000	212 - 796	163 - 600

B. Adult Normal Range Chart

%	>18 yrs
CD3	62 - 88
CD3/4	35.3 - 61.1
CD3/8	11.2 - 37.3
CD19	6.3 - 20.0
CD16/56	3.2 - 23.7
Ratio	1.0 - 3.6
Absolutes	>18 yrs
CD3	678 - 2504
CD3/4	414 - 1679
CD3/8	162 - 1038
CD19	96 - 515
CD16/56	45 - 523

References:

1. Shearer WT et al. 2003. Lymphocyte subsets in healthy children from birth through 18 years of age: The pediatric AIDS Clinical Trials Group P1009 study. *J Allergy Clin Immunol.* **112**:973-80
2. Huck, K., et al., *Memory B-cells in healthy and antibody-deficient children.* *Clin Immunol*, 2009. **131**(1): p. 50-9