

Table 1. Composition of lymphocyte subsets in human organs and fluids^a

Source of cells	Lymphocytes				Ratio		References
	B	T	CD4 ⁺	CD8 ⁺	T/B	CD4 ⁺ /CD8 ⁺	
<i>Organs</i>							
Skin ^b	<1	>95	45	45	>95.0	1.0	[4]
Thymus ^c	<1	>95	95	95	>95.0	1.0	[5, 32]
Liver	10	55	25	40	5.5	0.6	[24]
Lymph node	20	70	50	20	3.5	2.5	[3, 50]
Spleen	50	40	20	30	0.8	0.7	[28, 45]
Tonsils	50	40	30	10	0.8	3.0	[46, 56]
Bone marrow	50	50	20	30	1.0	0.7	[13, 14]
Greater omentum	70	30	–	–	0.4	–	[54]
<i>Lung</i>							
Alveolar space	5	70	40	25	14.0	1.6	[11]
Epithelium	<1	>95	25	60	>95.0	0.4	[18]
Interstitial	15	85	40	40	5.7	1.0	[27]
<i>Small intestine</i>							
Epithelium	1	85	15	85	85.0	0.2	[10, 62]
Lamina propria	30	70	50	25	2.3	2.0	[26, 31]
Peyer's patches ^c	40	45	30	10	1.1	3.0	[35]
<i>Fluids</i>							
Peritoneal fluid	5	95	25	60	19.0	0.4	[33]
Cerebrospinal fluid	5	90	60	30	18.0	2.0	[9, 37]
<i>Lymph</i>							
Afferent	5	75	40	20	15.0	2.0	[16, 39]
Efferent ^d	10	85	65	20	8.5	3.3	[19, 36]
Blood	25	70	50	25	2.8	2.0	[15, 17]
Breast milk	30	70	40	25	2.3	1.6	[30]

^a The values shown give the percentage of each subset among the whole lymphocyte population and have been derived from the references in brackets. The percentage of lymphocytes among all nucleated cells in the various organs are approximately: cerebrospinal fluid, afferent lymph, thoracic duct lymph and thymus >95%; digested lung tissue, blood, peritoneal fluid, greater omentum (milky spots), lamina propria, alveolar space and bone marrow 50%, 40%, 40%, 40%, 30%, 10% and 5%, respectively. Intraepithelial lymphocytes have a frequency of about 15 lymphocytes per 100 epithelial cells. However, both the number and phenotype composition of the intraepithelial lymphocytes depend on the location within the gut [6]. Breast milk (5–7 days after birth) contains 5000 cells/mm³, 30% of them being lymphocytes. About 1 × 10⁶ mononuclear cells are found per gram of digested liver tissue [24]

^b Percentages of the lymphocyte subsets around the skin vessels, which represent 90% of the lymphocytes in the skin. In the remaining 10%, which are located in the epidermis, CD8⁺ lymphocytes prevail

^c The organs were removed from children (mean age about 10 years)

^d The samples were obtained from patients with rheumatoid arthritis