

King's College Hospital

Paediatric reference ranges published by Sepiashvili *et al* (2022) are available for some of the cytokine assays offered by Scientific Research and Innovation Services (SR&I). No data is available for the following analytes: CY-19; IL-8, CY20; IL-17 & IL-2ra, CY21: CCL2/MCP-1, GM-CSF, IL-15 & VEGF-A, CY23; IL-5 & IL-13.

The ranges were determined using the same assay principle (ProteinSimple immunoassay) and instrument model (Ella) and so are considered highly comparable to the adult reference ranges derived by SR&I. They also used large numbers of subjects from mixed ethnicities. See https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9433181/pdf/nihms-1828734.pdf for full details.

Differences between concentration in healthy adults and children may be insignificant in comparison to elevated concentration seen in disease, the upper limit of quantitation of the assay is given in order to provide context.

Panel	Analyte	SR&I adult reference range (pg/mL)	Paediatric reference range (Sepiashvili et al, 2022)		Upper limit of quantification (pg/mL)	Comment	
		(P9/m=)	Age range	Range (pg/mL)	(pg/mz)		
CY-19	IL-1B	0 - 0.66	1 - <19	0 - 6.96	3060	IL-1B is higher in children and falls as adulthood approaches	
			4 - <14	0 - 8.59			
			14 - <19	0 - 1.42			
CY-19	IL-6	0 - 3.26	1 - <19	0 - 3.92	5304	Similar IL-6 concentrations in children to adults	
CY-19	TNFa	6.10 - 13.58	1 - <19	3.96 - 12.30	2320		
			1 - <8	5.38 - 13.19		TNFa can be lower in children than adults	
			8 - <19	3.44 - 10.70			
CY-20	IFN-y	0 - 1.76	1 - <19	0 - 3.7	8000	IFN-y may be slightly higher in children	
CY-20	IL-10	0.96 - 3.20	1 - <19	1.82 - 7.19	4242	IL-10 is higher in children	
			1 - <8	1.94 - 8.0			
			8 - <19	1.83 - 6.28			

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