Summary statistics - quantitative results

EQA round: IFT2/26 - Immunophenotypisation

Deadline: 19.10.2026

Setup: groups - R (manufacturer of kit); Slovakia; minimal size of the groups n = 5

RoM = robust average
SD = standard deviation
CV = coefficient of variation
N_{tot} = total number of the results
N_{out} = number of the results removed before calculation
AV = assigned value
CVP = consensus of all participants
U_{AV} = expanded uncertainty of the assigned value (k = 2)
D_{max} = acceptable difference
LL = lower limit
UL = upper limit
N_{eva} = number of the results assessed
N_{suc} = number of successful results
S_{rel} = relative success

Test / Sample / Group	[unit]	RoM	SD	CV [%]	N_{tot}	N_{out}	Comparability	AV	U_{AV}	D_{max}	LL	UL	N_{eva}	N_{suc}	S_{rel} [%]
(253) **T lymphocytes (CD3+)**	[%]				30								30	30	100
Sample A		75,6	1,6	2,1	30		CVP	75,7	0,33	7%	70,4	81	30	30	100
(12) Beckman Coulter		75,4	1,7	2,3	21	0							21		
Other					9	0							9		
							3x 36, 4x 88, 2x 177								
Sample B		76,2	1,1	1,4	30		CVP	76,7	0,24	7%	71,3	82,1	30	30	100
(12) Beckman Coulter		76,1	1,1	1,5	21	0							21		
Other					9	0							9		
							3x 36, 4x 88, 2x 177								
(254) **Th lymphocytes (CD4+)**	[%]				30								30	29	97
Sample A		29	1,1	3,9	30		CVP	29,2	0,26	10%	26,2	32,2	30	29	97
(12) Beckman Coulter		29	1	3,6	20	0							20		
Other					10	0							10		
							3x 36, 1x 58, 4x 88, 2x 177								
Sample B		57	1,3	2,3	30		CVP	57,6	0,31	10%	51,8	63,4	30	29	97
(12) Beckman Coulter		56,8	1	1,8	20	0							20		
Other					10	0							10		
							3x 36, 1x 58, 4x 88, 2x 177								
(255) **T lymphocytes (CD8+)**	[%]				30								30	29	97
Sample A		44,6	1,8	4,1	30		CVP	44,6	0,36	17%	37	52,2	30	30	100
(12) Beckman Coulter		44,4	2,2	5	20	0							20		
Other					10	0							10		
							3x 36, 1x 58, 4x 88, 2x 177								
Sample B		18,1	2,2	12	30		CVP	18,5	0,55	17%	15,3	21,7	30	29	97
(12) Beckman Coulter		17,9	1,9	11	20	0							20		
Other					10	0							10		
							3x 36, 1x 58, 4x 88, 2x 177								
(256) **B lymphocytes**	[%]				30								30	30	100
Sample A		13,3	0,77	5,8	30		CVP	13,5	0,18	30%	9,45	17,6	30	30	100
(12) Beckman Coulter		13,4	0,78	5,8	20	0							20		
Other					10	0							10		
							3x 36, 1x 58, 4x 88, 2x 177								
Sample B		13,3	0,85	6,4	30		CVP	13,2	0,16	30%	9,24	17,2	30	30	100
(12) Beckman Coulter		13,2	0,94	7,1	20	0							20		
Other					10	0							10		
							3x 36, 1x 58, 4x 88, 2x 177								
(257) **NK cells**	[%]				30								30	29	97
Sample A		9,65	0,79	8,2	30		CVP	9,48	0,19	26%	7,01	12	30	29	97
(12) Beckman Coulter		9,74	1	10	20	0							20		
Other					10	0							10		
							3x 36, 1x 58, 4x 88, 2x 177								
Sample B		9,17	0,72	7,9	30		CVP	9,12	0,17	26%	6,74	11,5	30	30	100
(12) Beckman Coulter		9,25	0,6	6,5	20	0							20		
Other					10	0							10		
							3x 36, 1x 58, 4x 88, 2x 177								
(638) **Isotype switched memory B lymphocytes (CD19+CD27+IgD-)**	[% of B]				4								4	3	75
Sample A		5,53	5,1	93	4		CVP	7,85	1,2	42%	4,55	11,2	4	3	75
Other					4	0							4		
							1x 0, 1x 12, 1x 36, 1x 58								
Sample B		6,79	7,1	110	4		CVP	9,81	2,2	60%	3,92	15,7	4	3	75
Other					4	0							4		
							1x 0, 1x 12, 1x 36, 1x 58								
(642) **T regulatory lymphocytes (CD3+CD4+CD25+CD127low)**	[% of Th]				5								5	5	100
Sample A		7,18	3,7	52	5		CVP	8,77	2,1	84%	1,4	16,2	5	5	100
Other					5	0							5		
							2x 12, 1x 36, 1x 58, 1x 999								
Sample B		4,06	1,8	45	5		CVP	4,84	0,96	68%	1,54	8,14	5	5	100
Other					5	0							5		
							2x 12, 1x 36, 1x 58, 1x 999								
(630) **WBC**	[$\cdot 10^9$/L]				24								24	24	100
Sample A		1,83	0,11	6,2	24		CVP	1,85	0,026	18%	1,51	2,19	24	24	100
(63) Sysmex		1,85	0,074	4	9	0							9		
(177) Mindray		1,89	0,11	5,8	10	0							10		

Summary statistics - quantitative results

EQA round: IFT2/26 - Immunophenotypisation

Deadline: 19.10.2026

Setup: groups - R (manufacturer of kit); Slovakia; minimal size of the groups n = 5

Test / Sample / Group	[unit]	RoM	SD	CV [%]	N_{tot}	N_{out}	Comparability	AV	U_{AV}	D_{max}	LL	UL	N_{eva}	N_{suc}	S_{rel} [%]
Other					5	0	1x 0, 2x 12, 1x 176, 1x 179						5		
Sample B		4,22	0,2	4,7	24		CVP	4,28	0,055	18%	3,5	5,06	24	24	100
(63) Sysmex		4,25	0,074	1,7	9	0							9		
(177) Mindray		4,35	0,2	4,6	10	0							10		
Other					5	0	1x 0, 2x 12, 1x 176, 1x 179						5		
(631) **Lymphocytes**	[·10^9/L]				24								24	22	92
Sample A		0,431	0,057	13	24		CVP	0,466	0,022	25%	0,349	0,583	24	23	96
(63) Sysmex		0,475	0,022	4,7	8	0							8		
(177) Mindray		0,405	0,037	9,2	9	0							9		
Other					7	0	1x 0, 3x 12, 1x 36, 1x 176, 1x 179						7		
Sample B		1,63	0,15	8,9	24		CVP	1,7	0,044	25%	1,27	2,13	24	23	96
(63) Sysmex		1,75	0,14	8,1	8	0							8		
(177) Mindray		1,62	0,059	3,7	9	0							9		
Other					7	0	1x 0, 3x 12, 1x 36, 1x 176, 1x 179						7		
(632) **T lymphocytes (CD3+) (abs. count)**	[·10^9/L]				24								24	22	92
Sample A		0,322	0,047	15	24		CVP	0,348	0,017	25%	0,261	0,435	24	22	92
(12) Beckman Coulter		0,331	0,05	15	12	0							12		
Other					12	0	2x 0, 2x 36, 3x 63, 2x 88, 2x 177, 1x 999						12		
Sample B		1,25	0,099	7,9	24		CVP	1,3	0,034	25%	0,975	1,63	24	24	100
(12) Beckman Coulter		1,27	0,091	7,1	12	0							12		
Other					12	0	2x 0, 2x 36, 3x 63, 2x 88, 2x 177, 1x 999						12		
(633) **Th lymphocytes (CD4+) (abs. count)**	[·10^9/L]				24								24	22	92
Sample A		0,125	0,018	14	24		CVP	0,134	0,006	25%	0,1	0,168	24	22	92
(12) Beckman Coulter		0,129	0,022	17	12	0							12		
Other					12	0	2x 0, 2x 36, 3x 63, 2x 88, 2x 177, 1x 999						12		
Sample B		0,931	0,077	8,3	24		CVP	0,976	0,026	25%	0,732	1,22	24	23	96
(12) Beckman Coulter		0,954	0,067	7	12	0							12		
Other					12	0	2x 0, 2x 36, 3x 63, 2x 88, 2x 177, 1x 999						12		
(634) **T lymphocytes (CD8+) (abs. count)**	[·10^9/L]				24								24	21	88
Sample A		0,192	0,028	15	24		CVP	0,205	0,01	25%	0,153	0,257	24	23	96
(12) Beckman Coulter		0,194	0,028	15	12	0							12		
Other					12	0	2x 0, 2x 36, 3x 63, 2x 88, 2x 177, 1x 999						12		
Sample B		0,291	0,044	15	24		CVP	0,315	0,015	25%	0,236	0,394	24	22	92
(12) Beckman Coulter		0,292	0,05	17	12	0							12		
Other					12	0	2x 0, 2x 36, 3x 63, 2x 88, 2x 177, 1x 999						12		
(635) **B lymphocytes (abs. count)**	[·10^9/L]				24								24	22	92
Sample A		0,057	0,009	16	24		CVP	0,062	0,003	25%	0,046	0,078	24	22	92
(12) Beckman Coulter		0,06	0,011	18	12	0							12		
Other					12	0	2x 0, 2x 36, 3x 63, 2x 88, 2x 177, 1x 999						12		
Sample B		0,218	0,016	7,3	24		CVP	0,223	0,006	25%	0,167	0,279	24	24	100
(12) Beckman Coulter		0,221	0,015	6,6	12	0							12		
Other					12	0	2x 0, 2x 36, 3x 63, 2x 88, 2x 177, 1x 999						12		
(636) **NK cells (abs. count)**	[·10^9/L]				24								24	22	92
Sample A		0,042	0,007	17	24		CVP	0,044	0,003	25%	0,033	0,055	24	22	92
(12) Beckman Coulter		0,041	0,004	9	11	0							11		
Other					13	0	2x 0, 1x 9, 2x 36, 3x 63, 2x 88, 2x 177, 1x 999						13		
Sample B		0,15	0,018	12	24		CVP	0,156	0,006	25%	0,117	0,195	24	24	100
(12) Beckman Coulter		0,148	0,016	11	11	0							11		
Other					13	0	2x 0, 1x 9, 2x 36, 3x 63, 2x 88, 2x 177, 1x 999						13		