

EQA round: RET1/26 - Reticulocytes

Deadline: 24.4.2026

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

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

Test Sample Group	[unit]	RoM	SD	CV [%]	N _{tot}	N _{out}	Comparability					N _{eva}	N _{suc}	S _{rel} [%]	
							AV	U _{AV}	D _{max}	LL	UL				
(120) Reticulocyte count (analyser)	[·10 ⁹ /L]				52							52	49	94	
Sample A		53,5	8,5	16	52		CVP	55	1,1	40%	33	77	52	50	96
(12) Beckman Coulter		37,7	9,1	24	6	0							6		
(63) Sysmex		56,3	5,5	9,7	18	0							18		
(177) Mindray		54,3	7,2	13	26	0							26		
Other					2	0							2		
							1x 1, 1x 179								
Sample B		54,4	8,4	15	52		CVP	57,6	1,2	40%	34,5	80,7	52	49	94
(12) Beckman Coulter		37,7	9,3	25	6	0							6		
(63) Sysmex		58,9	6,3	11	18	0							18		
(177) Mindray		53,8	6,8	13	26	0							26		
Other					2	0							2		
							1x 1, 1x 179								
(138) Reticulocyte count (microscope)	[·10 ⁹ /L]				1								1	1	100
Sample A		49,4			1		CVP	52,5	6,7	45%	28,8	76,2	1	1	100
Other					1	0							1		
							1x 0								
Sample B		40,8			1		CVP	56,3	6	45%	30,9	81,7	1	1	100
Other					1	0							1		
							1x 0								
(126) Immature reticulocyte fraction	[%]				36								36	32	89
Sample A		8,5	3,1	37	36								36	33	92
(63) Sysmex		6,73	2,2	32	11	0	CVPG	6,39	0,39	45%	3,51	9,27	11		
(177) Mindray		8,36	2,4	29	21	0	CVPG	8,37	1	45%	4,6	12,2	21		
Other					4	0							4		
							4x 12								
Sample B		9,32	3,4	36	36								36	33	92
(63) Sysmex		7,34	1,6	22	11	0	CVPG	7,04	0,35	45%	3,87	10,3	11		
(177) Mindray		9,35	2,9	31	21	0	CVPG	9,28	1,1	45%	5,1	13,5	21		
Other					4	0							4		
							4x 12								
(128) Mean amount of hemoglobin in reticulocytes	[pg]				33								32	27	84
Sample A		31,8	3,2	10	33								32	27	84
(63) Sysmex		34,5	1,3	3,8	13	0	CVPG	34,3	0,24	10%	30,8	37,8	13		
(177) Mindray		29,9	2,7	8,9	19	0	CVPG	29,5	0,85	10%	26,5	32,5	19		
Other					1	0							0		
							1x 179								
Sample B		30,8	3,5	11	33								32	28	88
(63) Sysmex		33,6	1,2	3,5	13	0	CVPG	33,6	0,22	10%	30,2	37	13		
(177) Mindray		28,7	2,7	9,3	19	0	CVPG	28,3	0,8	10%	25,4	31,2	19		
Other					1	0							0		
							1x 179								
(127) Mean reticulocyte volume	[fL]				19								19	15	79
Sample A		108	8,1	7,5	19		CVP	109	2,8	10%	98,1	120	19	15	79
(12) Beckman Coulter		114	2,6	2,3	5	0							5		
(177) Mindray		105	7,9	7,6	13	0							13		
Other					1	0							1		
							1x 179								
Sample B		102	7,1	6,9	19		CVP	103	2,2	10%	92,7	114	19	17	89
(12) Beckman Coulter		104	4,6	4,4	5	0							5		
(177) Mindray		99,9	7	7	13	0							13		
Other					1	0							1		
							1x 179								