

EQA round: PRO1/23 - Specific Proteins

Deadline: 3.3.2023

Setup: groups - measurement principle; 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				
(46) α-1-antitrypsin	[g/L]				22							22	22	100	
Sample A		1	0,064	6,4	22		CVP	0,985	0,018	25%	0,738	1,24	22	22	100
(2) Immunoturbidimetry		0,997	0,075	7,5	19	0							19		
Other					3	0							3		
							3x 3								
Sample B		1,76	0,14	8,1	22		CVP	1,74	0,032	25%	1,3	2,18	22	22	100
(2) Immunoturbidimetry		1,74	0,14	8	19	0							19		
Other					3	0							3		
							3x 3								
(53) α-2-macroglobulin	[g/L]				8							8	8	100	
Sample A		1,26	0,099	7,8	8		CVP	1,26	0,037	21%	0,995	1,53	8	8	100
(2) Immunoturbidimetry		1,26	0,099	7,8	6	0							6		
Other					2	0							2		
							2x 3								
Sample B		2,24	0,18	8,2	8		CVP	2,26	0,069	21%	1,78	2,74	8	8	100
(2) Immunoturbidimetry		2,24	0,18	8,2	6	0							6		
Other					2	0							2		
							2x 3								
(45) Albumin	[g/L]				30							30	29	97	
Sample A		34,9	1,7	4,8	30		CVP	34,9	0,32	10%	31,4	38,4	30	30	100
(1) BCG		35	1,7	4,9	27	0							27		
Other					3	0							3		
							2x 2, 1x 99								
Sample B		61	2,8	4,6	30		CVP	62,2	0,9	16%	52,2	72,2	30	29	97
(1) BCG		60,9	2,9	4,8	27	0							27		
Other					3	0							3		
							2x 2, 1x 99								
(47) C3 complement	[g/L]				32							32	29	91	
Sample A		1,07	0,077	7,2	32		CVP	1,1	0,034	28%	0,792	1,41	32	31	97
(2) Immunoturbidimetry		1,08	0,074	6,9	29	1							29		
Other					3	0							3		
							1x 0, 2x 3								
Sample B		1,91	0,11	5,8	32		CVP	1,99	0,053	24%	1,51	2,47	32	30	94
(2) Immunoturbidimetry		1,92	0,11	5,6	29	0							29		
Other					3	0							3		
							1x 0, 2x 3								
(52) C4 complement	[g/L]				32							32	30	94	
Sample A		0,211	0,025	12	32		CVP	0,219	0,007	28%	0,157	0,281	32	30	94
(2) Immunoturbidimetry		0,213	0,024	11	29	1							29		
Other					3	0							3		
							1x 0, 2x 3								
Sample B		0,38	0,057	15	32		CVP	0,401	0,012	28%	0,288	0,514	32	31	97
(2) Immunoturbidimetry		0,385	0,057	15	29	0							29		
Other					3	0							3		
							1x 0, 2x 3								
(55) Total protein	[g/L]				45							45	44	98	
Sample A		53,9	1,5	2,8	45		CVP	54	0,26	18%	44,2	63,8	45	44	98
(1) Biuret		54,1	1,4	2,7	42	1							42		
Other					3	0							3		
							2x 0, 1x 99								
Sample B		96,7	2,4	2,4	45		CVP	97,1	0,42	18%	79,6	115	45	45	100
(1) Biuret		96,8	2,4	2,5	42	0							42		
Other					3	0							3		
							2x 0, 1x 99								
(49) Ceruloplasmin	[g/L]				19							17	15	88	
Sample A		0,214	0,027	13	19							17	15	88	
(2) Immunoturbidimetry; (58) Beckman Coulter (AU)		0,21	0,015	7	5	1	CVPG	0,21	0,014	19%	0,17	0,25	5		
Other					14	0							12		
							2x 2/1, 2x 2/5, 2x 2/12, 3x 2/60, 3x 2/91, 2x 3/149								
Sample B		0,369	0,04	11	19							17	15	88	
(2) Immunoturbidimetry; (58) Beckman Coulter (AU)		0,365	0,037	10	5	1	CVPG	0,355	0,021	19%	0,287	0,423	5		
Other					14	0							12		
							2x 2/1, 2x 2/5, 2x 2/12, 3x 2/60, 3x 2/91, 2x 3/149								

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							AV	U _{AV}	D _{max}	LL	UL				
(51) Haptoglobin	[g/L]				19							19	17	89	
Sample A		0,888	0,036	4,1	19		CVP	0,87	0,012	13%	0,756	0,984	19	18	95
(2) Immunoturbidimetry		0,891	0,044	4,9	16	1							16		
Other					3	0							3		
							3x 3								
Sample B		1,59	0,094	5,9	19		CVP	1,59	0,022	13%	1,38	1,8	19	18	95
(2) Immunoturbidimetry		1,6	0,1	6,6	16	0							16		
Other					3	0							3		
							3x 3								
(41) IgA	[g/L]				50							50	49	98	
Sample A		1,76	0,074	4,2	50		CVP	1,76	0,012	14%	1,51	2,01	50	49	98
(2) Immunoturbidimetry		1,76	0,078	4,4	44	1							44		
Other					6	0							6		
							2x 0, 4x 3								
Sample B		3,17	0,12	3,9	50		CVP	3,18	0,023	14%	2,73	3,63	50	50	100
(2) Immunoturbidimetry		3,17	0,12	3,8	44	0							44		
Other					6	0							6		
							2x 0, 4x 3								
(42) IgG	[g/L]				50							50	47	94	
Sample A		8,56	0,41	4,7	50		CVP	8,7	0,055	13%	7,56	9,84	50	48	96
(2) Immunoturbidimetry		8,54	0,42	4,9	44	1							44		
Other					6	0							6		
							2x 0, 4x 3								
Sample B		15,1	0,81	5,4	50		CVP	15,4	0,12	13%	13,3	17,5	50	49	98
(2) Immunoturbidimetry		15,1	0,84	5,5	44	0							44		
Other					6	0							6		
							2x 0, 4x 3								
(43) IgM	[g/L]				50							50	48	96	
Sample A		1,11	0,063	5,6	50		CVP	1,11	0,009	18%	0,91	1,31	50	48	96
(2) Immunoturbidimetry		1,11	0,066	5,9	45	1							45		
Other					5	0							5		
							2x 0, 3x 3								
Sample B		2,3	0,16	7	50		CVP	2,34	0,023	18%	1,91	2,77	50	49	98
(2) Immunoturbidimetry		2,31	0,16	6,9	45	0							45		
Other					5	0							5		
							2x 0, 3x 3								
(50) Orosomuroid	[g/L]				12							12	11	92	
Sample A		0,644	0,085	13	12		CVP	0,62	0,022	20%	0,496	0,744	12	11	92
(2) Immunoturbidimetry		0,655	0,094	14	10	0							10		
Other					2	0							2		
							2x 3								
Sample B		1,18	0,13	11	12		CVP	1,16	0,032	20%	0,928	1,4	12	12	100
(2) Immunoturbidimetry		1,17	0,12	10	10	0							10		
Other					2	0							2		
							2x 3								
(48) Prealbumin	[g/L]				16							16	12	75	
Sample A		0,225	0,018	8	16		CVP	0,23	0,004	23%	0,177	0,283	16	15	94
(2) Immunoturbidimetry		0,224	0,021	9,5	14	1							14		
Other					2	0							2		
							2x 3								
Sample B		0,381	0,064	17	16		CVP	0,399	0,007	23%	0,307	0,491	16	13	81
(2) Immunoturbidimetry		0,371	0,057	15	14	0							14		
Other					2	0							2		
							2x 3								
(56) Soluble Transferrin Receptor (sTfR)	[mg/L]				19							12	12	100	
Sample A		0,853	0,29	34	19							12	12	100	
(6) IMT, IMN; (999) another manufacturer		0,585	0,13	22	5	0						0			
Other					14	0						12			
							1x 2/12, 1x 2/60, 2x 2/999, 4x 4/12, 3x 6/60, 3x 6/149								
Sample B		1,58	0,52	33	19							12	12	100	
(6) IMT, IMN; (999) another manufacturer		1,16	0,082	7,1	5	0						0			
Other					14	0						12			
							1x 2/12, 1x 2/60, 2x 2/999, 4x 4/12, 3x 6/60, 3x 6/149								
(44) Transferrin	[g/L]				34							34	32	94	
Sample A		2,1	0,085	4	34		CVP	2,08	0,012	12%	1,83	2,33	34	32	94
(2) Immunoturbidimetry		2,1	0,089	4,2	31	1							31		
Other					3	0							3		
							3x 3								
Sample B		3,82	0,15	4	34		CVP	3,79	0,023	12%	3,33	4,25	34	33	97
(2) Immunoturbidimetry		3,82	0,16	4,1	31	0							31		

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							AV	U _{AV}	D _{max}	LL	UL			
Other					3	0							3	
							3x3							