

EQA round: PRO2/24 - Specific Proteins

Deadline: 20.9.2024

Setup: groups - M (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]				21							21	20	95	
Sample A		0,665	0,079	12	21		CVP	0,671	0,026	25%	0,503	0,839	21	21	100
(2) Immunoturbidimetry		0,664	0,086	13	19	0							19		
Other					2	0							2		
							2x 3								
Sample B		2,37	0,43	18	21		CVP	2,42	0,13	25%	1,81	3,03	21	20	95
(2) Immunoturbidimetry		2,38	0,46	19	19	0							19		
Other					2	0							2		
							2x 3								
(53) α-2-macroglobulin	[g/L]				7							7	6	86	
Sample A		0,888	0,1	11	7		CVP	0,867	0,039	21%	0,684	1,05	7	6	86
(2) Immunoturbidimetry		0,908	0,071	7,8	5	0							5		
Other					2	0							2		
							2x 3								
Sample B		3,51	0,46	13	7		CVP	3,38	0,15	21%	2,67	4,09	7	7	100
(2) Immunoturbidimetry		3,36	0,13	3,9	5	0							5		
Other					2	0							2		
							2x 3								
(45) Albumin	[g/L]				40							40	35	88	
Sample A		20,9	1,2	5,6	40		CVP	21	0,21	12%	18,4	23,6	40	38	95
(1) BCG		20,9	1,3	6	37	0							37		
Other					3	0							3		
							2x 2, 1x 99								
Sample B		68,3	5	7,4	40		CVP	68,9	0,93	12%	60,6	77,2	40	36	90
(1) BCG		68,2	5	7,4	37	0							37		
Other					3	0							3		
							2x 2, 1x 99								
(47) C3 complement	[g/L]				30							30	28	93	
Sample A		0,692	0,04	5,8	30		CVP	0,711	0,008	14%	0,611	0,811	30	29	97
(2) Immunoturbidimetry		0,688	0,038	5,6	28	0							28		
Other					2	0							2		
							2x 3								
Sample B		2,33	0,14	5,8	30		CVP	2,37	0,025	14%	2,03	2,71	30	29	97
(2) Immunoturbidimetry		2,32	0,13	5,7	28	0							28		
Other					2	0							2		
							2x 3								
(52) C4 complement	[g/L]				30							30	29	97	
Sample A		0,073	0,009	12	30		CVP	0,073	0,002 ±0,032	0,041	0,105		30	29	97
(2) Immunoturbidimetry		0,073	0,009	13	28	0							28		
Other					2	0							2		
							2x 3								
Sample B		0,257	0,026	10	30		CVP	0,253	0,006	21%	0,199	0,307	30	30	100
(2) Immunoturbidimetry		0,256	0,026	10	28	0							28		
Other					2	0							2		
							2x 3								
(55) Total protein	[g/L]				44							44	44	100	
Sample A		29,5	3,2	11	44		CVP	30,2	0,59	24%	22,9	37,5	44	44	100
(1) Biuret		29,5	3,2	11	42	0							42		
Other					2	0							2		
							1x 0, 1x 99								
Sample B		109	4,1	3,8	44		CVP	111	0,69	18%	91	131	44	44	100
(1) Biuret		109	4,2	3,8	42	0							42		
Other					2	0							2		
							1x 0, 1x 99								
(49) Ceruloplasmin	[g/L]				18							17	14	82	
Sample A		0,117	0,021	18	18							17	15	88	
(2) Immunoturbidimetry; (58) Beckman Coulter (AU)		0,113	0,009	7,9	5	0	CVPG	0,114	0,01	19%	0,092	0,136	5		
Other					13	0							12		
							3x 2/1, 1x 2/5, 2x 2/12, 3x 2/60, 3x 2/91, 1x 3/149								
Sample B		0,495	0,11	23	18							17	16	94	
(2) Immunoturbidimetry; (58) Beckman Coulter (AU)		0,446	0,015	3,3	5	0	CVPG	0,451	0,009	19%	0,365	0,537	5		
Other					13	0							12		
							3x 2/1, 1x 2/5, 2x 2/12, 3x 2/60, 3x 2/91, 1x 3/149								

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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				
(51) Haptoglobin	[g/L]				16							16	14	88	
Sample A		0,692	0,042	6,1	16		CVP	0,693	0,007	13%	0,602	0,784	16	15	94
(2) Immunoturbidimetry		0,699	0,04	5,8	14	0						14			
Other					2	0						2			
							2x 3								
Sample B		2,55	0,084	3,3	16		CVP	2,52	0,028	13%	2,19	2,85	16	15	94
(2) Immunoturbidimetry		2,56	0,078	3	14	0						14			
Other					2	0						2			
							2x 3								
(41) IgA	[g/L]				50							50	49	98	
Sample A		1,06	0,066	6,2	50		CVP	1,08	0,011	14%	0,928	1,24	50	49	98
(2) Immunoturbidimetry		1,07	0,065	6,1	46	0						46			
Other					4	0						4			
							1x 0, 3x 3								
Sample B		5,34	0,25	4,6	50		CVP	5,4	0,045	14%	4,64	6,16	50	50	100
(2) Immunoturbidimetry		5,36	0,23	4,3	46	0						46			
Other					4	0						4			
							1x 0, 3x 3								
(42) IgG	[g/L]				51							51	48	94	
Sample A		4,29	0,21	4,9	51		CVP	4,39	0,037	13%	3,81	4,97	51	51	100
(2) Immunoturbidimetry		4,29	0,22	5,1	47	0						47			
Other					4	0						4			
							1x 0, 3x 3								
Sample B		23,7	1,4	5,8	51		CVP	24,2	0,22	13%	21	27,4	51	48	94
(2) Immunoturbidimetry		23,7	1,4	5,9	47	0						47			
Other					4	0						4			
							1x 0, 3x 3								
(43) IgM	[g/L]				51							51	46	90	
Sample A		0,414	0,051	12	51		CVP	0,419	0,006	18%	0,343	0,495	51	46	90
(2) Immunoturbidimetry		0,416	0,053	13	47	0						47			
Other					4	0						4			
							1x 0, 3x 3								
Sample B		4,18	0,25	5,9	51		CVP	4,25	0,036	18%	3,48	5,02	51	51	100
(2) Immunoturbidimetry		4,18	0,26	6,2	47	0						47			
Other					4	0						4			
							1x 0, 3x 3								
(50) Orosomuroid	[g/L]				11							11	11	100	
Sample A												11	11	100	
(2) Immunoturbidimetry		0,429	0,054	13	11	0	CVP	0,41	0,024	34%	0,27	0,55	11		
Sample B												11	11	100	
(2) Immunoturbidimetry		1,57	0,12	7,5	11	0	CVP	1,55	0,042	20%	1,24	1,86	11		
(48) Prealbumin	[g/L]				14							14	10	71	
Sample A		0,118	0,015	13	14		CVP	0,11	0,003	24%	0,083	0,137	14	11	79
(2) Immunoturbidimetry		0,119	0,014	11	13	0						13			
Other					1	0						1			
							1x 3								
Sample B		0,37	0,021	5,6	14		CVP	0,365	0,005	17%	0,302	0,428	14	12	86
(2) Immunoturbidimetry		0,372	0,02	5,4	13	0						13			
Other					1	0						1			
							1x 3								
(56) Soluble Transferrin Receptor (sTfR)	[mg/L]				18							13	13	100	
Sample A		0,621	0,3	48	18							13	13	100	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		0,555	0,007	1,3	5	0	CVPG	0,548	0,017	20%	0,438	0,658	5		
Other					13	0						8			
							1x 2/12, 1x 2/60, 2x 2/999, 3x 6/60, 3x 6/149, 3x 6/999								
Sample B		2,18	0,73	34	18							13	13	100	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		2,12	0,17	8,1	5	0	CVPG	2,04	0,051	20%	1,63	2,45	5		
Other					13	0						8			
							1x 2/12, 1x 2/60, 2x 2/999, 3x 6/60, 3x 6/149, 3x 6/999								
(44) Transferrin	[g/L]				33							33	30	91	
Sample A		1,31	0,044	3,4	33		CVP	1,32	0,007	12%	1,16	1,48	33	33	100
(2) Immunoturbidimetry		1,32	0,041	3,1	31	0						31			
Other					2	0						2			
							2x 3								
Sample B		5,26	0,19	3,5	33		CVP	5,22	0,038	12%	4,59	5,85	33	30	91
(2) Immunoturbidimetry		5,26	0,2	3,7	31	0						31			
Other					2	0						2			
							2x 3								