

## EQA round: PRO2/23 - Specific Proteins

Deadline: 22.9.2023

Setup: groups - measurement principle; Slovakia; minimal size of the groups n = 5

RoM = robust average	AV = assigned value	D <sub>max</sub> = 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 <sub>tot</sub> = total number of the results	U <sub>AV</sub> = expanded uncertainty of the assigned value (k = 2)	N <sub>eva</sub> = number of the results assessed
N <sub>out</sub> = number of the results removed before calculation		N <sub>suc</sub> = number of successful results
		S <sub>rel</sub> = relative success

Test Sample Group	[unit]	RoM	SD	CV [%]	N <sub>tot</sub>	N <sub>out</sub>	Comparability					N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub> [%]	
							AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL				
<b>(46) α-1-antitrypsin</b>	[g/L]				22							22	22	100	
<b>Sample A</b>		1,16	0,12	11	22		CVP	1,17	0,037	25%	0,877	1,47	22	22	100
(2) Immunoturbidimetry		1,16	0,11	9,5	20	0							20		
Other					2	0							2		
							2x 3								
<b>Sample B</b>		1,4	0,15	10	22		CVP	1,41	0,044	25%	1,05	1,77	22	22	100
(2) Immunoturbidimetry		1,4	0,13	9,1	20	0							20		
Other					2	0							2		
							2x 3								
<b>(53) α-2-macroglobulin</b>	[g/L]				8							8	7	88	
<b>Sample A</b>		0,875	0,052	5,9	8		CVP	0,835	0,034	21%	0,659	1,02	8	7	88
(2) Immunoturbidimetry		0,893	0,025	2,8	6	0							6		
Other					2	0							2		
							2x 3								
<b>Sample B</b>		1,13	0,12	11	8		CVP	1,13	0,041	21%	0,892	1,37	8	8	100
(2) Immunoturbidimetry		1,16	0,087	7,5	6	0							6		
Other					2	0							2		
							2x 3								
<b>(45) Albumin</b>	[g/L]				37							37	34	92	
<b>Sample A</b>		36,6	1,6	4,3	37		CVP	36,8	0,3	10%	33,1	40,5	37	35	95
(1) BCG		36,5	1,6	4,3	32	0							32		
Other					5	0							5		
							2x 0, 2x 2, 1x 99								
<b>Sample B</b>		45,8	2	4,3	37		CVP	46,1	0,33	10%	41,4	50,8	37	36	97
(1) BCG		45,7	2,1	4,6	32	0							32		
Other					5	0							5		
							2x 0, 2x 2, 1x 99								
<b>(47) C3 complement</b>	[g/L]				31							31	29	94	
<b>Sample A</b>		2,04	0,11	5,4	31		CVP	2,06	0,022	14%	1,77	2,35	31	29	94
(2) Immunoturbidimetry		2,03	0,12	5,7	29	0							29		
Other					2	0							2		
							2x 3								
<b>Sample B</b>		2,25	0,11	4,7	31		CVP	2,28	0,023	14%	1,96	2,6	31	30	97
(2) Immunoturbidimetry		2,25	0,11	5,1	29	0							29		
Other					2	0							2		
							2x 3								
<b>(52) C4 complement</b>	[g/L]				31							31	30	97	
<b>Sample A</b>		0,243	0,02	8,4	31		CVP	0,238	0,004	21%	0,188	0,288	31	30	97
(2) Immunoturbidimetry		0,242	0,02	8,3	29	0							29		
Other					2	0							2		
							2x 3								
<b>Sample B</b>		0,542	0,04	7,4	31		CVP	0,528	0,008	21%	0,417	0,639	31	31	100
(2) Immunoturbidimetry		0,539	0,039	7,2	29	0							29		
Other					2	0							2		
							2x 3								
<b>(55) Total protein</b>	[g/L]				44							44	44	100	
<b>Sample A</b>		46,7	4,1	8,7	44		CVP	47,1	0,62	18%	38,6	55,6	44	44	100
(1) Biuret		46,8	4	8,6	42	0							42		
Other					2	0							2		
							1x 0, 1x 99								
<b>Sample B</b>		62,1	4,2	6,8	44		CVP	62,7	0,6	18%	51,4	74	44	44	100
(1) Biuret		62,2	4,2	6,8	42	0							42		
Other					2	0							2		
							1x 0, 1x 99								
<b>(49) Ceruloplasmin</b>	[g/L]				19							17	17	100	
<b>Sample A</b>		0,459	0,072	16	19							17	17	100	
(2) Immunoturbidimetry; (58) Beckman Coulter (AU)		0,431	0,016	3,6	5	0	CVPG	0,433	0,015	19%	0,35	0,516	5		
Other					14	0							12		
							3x 2/1, 2x 2/5, 2x 2/12, 3x 2/60, 3x 2/91, 1x 3/149								
<b>Sample B</b>		0,708	0,11	16	19							17	17	100	
(2) Immunoturbidimetry; (58) Beckman Coulter (AU)		0,63	0,03	4,7	5	0	CVPG	0,635	0,028	19%	0,514	0,756	5		
Other					14	0							12		
							3x 2/1, 2x 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 <sub>tot</sub>	N <sub>out</sub>	Comparability					N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub> [%]	
							AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL				
<b>(51) Haptoglobin</b>	[g/L]				19							19	19	100	
<b>Sample A</b>		1,51	0,087	5,8	19		CVP	1,52	0,018	13%	1,32	1,72	19	19	100
(2) Immunoturbidimetry		1,5	0,084	5,6	17	0							17		
Other					2	0							2		
							2x 3								
<b>Sample B</b>		1,33	0,075	5,6	19		CVP	1,34	0,016	13%	1,16	1,52	19	19	100
(2) Immunoturbidimetry		1,33	0,076	5,7	17	0							17		
Other					2	0							2		
							2x 3								
<b>(41) IgA</b>	[g/L]				49							49	48	98	
<b>Sample A</b>		1,2	0,07	5,8	49		CVP	1,19	0,011	14%	1,02	1,36	49	48	98
(2) Immunoturbidimetry		1,2	0,066	5,5	45	0							45		
Other					4	0							4		
							1x 0, 3x 3								
<b>Sample B</b>		1,48	0,068	4,6	49		CVP	1,46	0,01	14%	1,25	1,67	49	49	100
(2) Immunoturbidimetry		1,48	0,066	4,5	45	0							45		
Other					4	0							4		
							1x 0, 3x 3								
<b>(42) IgG</b>	[g/L]				49							49	48	98	
<b>Sample A</b>		0,694	0,19	28	49								0		
(2) Immunoturbidimetry		0,705	0,22	31	45	1							0		
Other					4	0							0		
							1x 0, 3x 3								
<b>Sample B</b>		4,63	0,16	3,5	49		CVP	4,67	0,029	13%	4,06	5,28	49	48	98
(2) Immunoturbidimetry		4,64	0,17	3,6	45	0							45		
Other					4	0							4		
							1x 0, 3x 3								
<b>(43) IgM</b>	[g/L]				49							49	46	94	
<b>Sample A</b>		0,779	0,041	5,3	49		CVP	0,787	0,007	18%	0,645	0,929	49	48	98
(2) Immunoturbidimetry		0,781	0,039	5	45	0							45		
Other					4	0							4		
							1x 0, 3x 3								
<b>Sample B</b>		0,472	0,035	7,3	49		CVP	0,475	0,005	18%	0,389	0,561	49	46	94
(2) Immunoturbidimetry		0,473	0,035	7,4	45	0							45		
Other					4	0							4		
							1x 0, 3x 3								
<b>(50) Orosomuroid</b>	[g/L]				13							13	11	85	
<b>Sample A</b>		1,14	0,049	4,3	13		CVP	1,15	0,033	20%	0,92	1,38	13	11	85
(2) Immunoturbidimetry		1,13	0,039	3,4	12	0							12		
Other					1	0							1		
							1x 3								
<b>Sample B</b>		1,01	0,047	4,6	13		CVP	1,02	0,025	20%	0,816	1,23	13	12	92
(2) Immunoturbidimetry		1,01	0,037	3,7	12	0							12		
Other					1	0							1		
							1x 3								
<b>(48) Prealbumin</b>	[g/L]				16							16	13	81	
<b>Sample A</b>		0,219	0,028	13	16		CVP	0,208	0,003	17%	0,172	0,244	16	13	81
(2) Immunoturbidimetry		0,22	0,029	13	15	0							15		
Other					1	0							1		
							1x 3								
<b>Sample B</b>		0,62	0,039	6,3	16		CVP	0,616	0,011	17%	0,511	0,721	16	16	100
(2) Immunoturbidimetry		0,614	0,031	5	15	0							15		
Other					1	0							1		
							1x 3								
<b>(56) Soluble Transferrin Receptor (sTfR)</b>	[mg/L]				18							12	12	100	
<b>Sample A</b>												12	12	100	
Other					18	0						12			
							1x 2/12, 1x 2/60, 2x 2/999, 4x 4/12, 3x 6/60, 3x 6/149, 4x 6/999								
<b>Sample B</b>												12	12	100	
Other					18	0						12			
							1x 2/12, 1x 2/60, 2x 2/999, 4x 4/12, 3x 6/60, 3x 6/149, 4x 6/999								
<b>(44) Transferrin</b>	[g/L]				33							33	31	94	
<b>Sample A</b>		0,264	0,078	30	33								0		
(2) Immunoturbidimetry		0,26	0,078	30	31	1							0		
Other					2	0							0		
							2x 3								
<b>Sample B</b>		1,61	0,067	4,2	33		CVP	1,63	0,01	12%	1,43	1,83	33	31	94
(2) Immunoturbidimetry		1,61	0,064	4	31	0							31		
Other					2	0							2		
							2x 3								