

EQA round: E12/26 - Hormones 1

Deadline: 24.4.2026

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

RoM = robust average	AV = assigned value	D _{max} = acceptable difference
SD = standard deviation	CVPG = consensus of the participants' groups	LL = lower limit
CV = coefficient of variation	U _{AV} = expanded uncertainty of the assigned value (k = 2)	UL = upper limit
N _{tot} = total number of the results		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			
(306) 17-OH-progesterone	[nmol/L]				4							3	3	100
Sample A		7,45	3,8	51	4							3	3	100
Other					4	0						3		
							1x 1/999, 1x 2/66, 1x 4/73, 1x 4/183							
Sample B		3,31	1,8	56	4							3	3	100
Other					4	0						3		
							1x 1/999, 1x 2/66, 1x 4/73, 1x 4/183							
(303) Aldosterone	[nmol/L]				6							6	6	100
Sample A		0,348	0,063	18	6							6	6	100
Other					6	0						6		
							2x 1/36, 2x 4/73, 1x 4/164, 1x 4/183							
Sample B		0,99	0,12	12	6							6	6	100
Other					6	0						6		
							2x 1/36, 2x 4/73, 1x 4/164, 1x 4/183							
(307) DHEA-S	[µmol/L]				10							8	7	88
Sample A		3,96	0,57	14	10							8	8	100
Other					10	0						8		
							2x 4/1, 1x 4/12, 4x 4/60, 2x 4/73, 1x 4/162							
Sample B		12,6	2,5	20	10							8	7	88
Other					10	0						8		
							2x 4/1, 1x 4/12, 4x 4/60, 2x 4/73, 1x 4/162							
(302) 17-beta-estradiol	[pmol/L]				16							16	16	100
Sample A		414	38	9,2	16							16	16	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		413	4,2	1	5	0	CVPG	403	2,9	22%	314	492	5	
Other					11	0							11	
							3x 4/1, 4x 4/12, 2x 4/73, 2x 4/162							
Sample B		622	50	8,1	16							16	16	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		626	13	2	5	0	CVPG	600	3,5	22%	468	732	5	
Other					11	0							11	
							3x 4/1, 4x 4/12, 2x 4/73, 2x 4/162							
(200) Ferritin	[µg/L]				24							23	22	96
Sample A		157	44	28	24							23	22	96
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		190	24	13	6	0	CVPG	195	3,9	24%	148	242	6	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman		112	14	13	6	0	CVPG	110	3,6	24%	83,6	137	6	
Coulter														
Other					12	0							11	
							3x 4/60, 2x 4/162, 2x 4/179, 1x 6/58, 3x 6/60, 1x 6/178							
Sample B		418	120	28	24							23	23	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		541	62	11	6	0	CVPG	530	11	24%	402	658	6	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman		288	22	7,5	6	0	CVPG	303	9,7	24%	230	376	6	
Coulter														
Other					12	0							11	
							3x 4/60, 2x 4/162, 2x 4/179, 1x 6/58, 3x 6/60, 1x 6/178							
(301) Cortisol	[nmol/L]				14							14	14	100
Sample A		630	52	8,2	14							14	14	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman		638	20	3,1	6	0	CVPG	618	14	16%	519	717	6	
Coulter														
Other					8	0							8	
							1x 1/36, 1x 4/1, 3x 4/60, 1x 4/162, 2x 4/179							
Sample B		478	48	10	14							14	14	100
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman		463	19	4	6	0	CVPG	450	9,6	16%	378	522	6	
Coulter														
Other					8	0							8	
							1x 1/36, 1x 4/1, 3x 4/60, 1x 4/162, 2x 4/179							
(304) Progesterone	[nmol/L]				17							17	15	88
Sample A		57	10	18	17							17	15	88
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		67,1	3,2	4,8	5	0	CVPG	65,8	0,46	20%	52,6	79	5	
Other					12	0							12	
							4x 4/1, 4x 4/12, 1x 4/73, 2x 4/162, 1x 4/179							
Sample B		29,1	5,7	20	17							17	15	88
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		35,1	1,1	3,2	5	0	CVPG	34,4	0,22	20%	27,5	41,3	5	
Other					12	0							12	
							4x 4/1, 4x 4/12, 1x 4/73, 2x 4/162, 1x 4/179							

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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				
(125) Free T3	[pmol/L]				20							20	19	95	
Sample A		5,02	0,53	11	20							20	19	95	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		4,83	0,58	12	5	0	CVPG	4,69	0,097	15%	3,98	5,4	5		
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		5,23	0,27	5,1	6	0	CVPG	5,37	0,023	15%	4,56	6,18	6		
Other					9	0							9		
								1x 1/36, 4x 4/1, 3x 4/162, 1x 4/179							
Sample B		11,9	1,9	16	20							20	20	100	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		10,1	0,38	3,7	5	0	CVPG	9,88	0,2	15%	8,39	11,4	5		
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		13,9	0,58	4,2	6	0	CVPG	13,9	0,048	15%	11,8	16	6		
Other					9	0							9		
								1x 1/36, 4x 4/1, 3x 4/162, 1x 4/179							
(124) Free T4	[pmol/L]				27							27	27	100	
Sample A		15	1,8	12	27							27	27	100	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		13,4	0,15	1,1	6	0	CVPG	13,6	0,1	13%	11,8	15,4	6		
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		13,3	0,99	7,4	7	0	CVPG	13,2	0,22	13%	11,4	15	7		
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		16,6	0,44	2,7	9	0	CVPG	16,8	0,049	13%	14,6	19	9		
Other					5	0							5		
								1x 1/36, 3x 4/162, 1x 4/179							
Sample B		20,7	2,9	14	27							27	27	100	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		18	1,4	7,8	6	0	CVPG	17,9	0,13	13%	15,5	20,3	6		
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		18,9	1,9	10	7	0	CVPG	19,3	0,3	13%	16,7	21,9	7		
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		23,7	0,43	1,8	9	0	CVPG	23,7	0,072	13%	20,6	26,8	9		
Other					5	0							5		
								1x 1/36, 3x 4/162, 1x 4/179							
(305) Testosterone	[nmol/L]				17							17	17	100	
Sample A		42,4	6,8	16	17							17	17	100	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		38,6	1,2	3,2	6	0	CVPG	39,2	0,71	22%	30,5	47,9	6		
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		48	1,3	2,7	5	0	CVPG	48	0,27	22%	37,4	58,6	5		
Other					6	0							6		
								2x 4/1, 1x 4/73, 2x 4/162, 1x 4/179							
Sample B		13,8	2,3	16	17							17	17	100	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		11,7	0,15	1,3	6	0	CVPG	12,1	0,18	22%	9,43	14,8	6		
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		15,3	0,71	4,6	5	0	CVPG	14,4	0,08	22%	11,2	17,6	5		
Other					6	0							6		
								2x 4/1, 1x 4/73, 2x 4/162, 1x 4/179							
(123) TSH	[mU/L]				27							27	27	100	
Sample A		23,1	3	13	27							27	27	100	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		18,8	0,23	1,2	6	0	CVPG	19,2	0,11	14%	16,5	21,9	6		
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		23,7	1,5	6,3	8	0	CVPG	24,2	0,33	14%	20,8	27,6	8		
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		25,1	1,1	4,4	9	0	CVPG	24,9	0,082	14%	21,4	28,4	9		
Other					4	0							4		
								3x 4/162, 1x 4/179							
Sample B		8,93	1,1	12	27							27	27	100	
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (1) Abbott		7,39	0,076	1	6	0	CVPG	7,57	0,048	14%	6,51	8,63	6		
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (12) Beckman Coulter		9,17	0,51	5,6	8	0	CVPG	9,14	0,11	14%	7,86	10,5	8		
(4) LIA (CLIA, CMIA, ECLIA, LOCI); (60) Roche		9,77	0,51	5,2	9	0	CVPG	9,64	0,033	14%	8,29	11	9		
Other					4	0							4		
								3x 4/162, 1x 4/179							