

EQA round: VVV1/23 - Maternal Diagnostic Screening (Triple Test)

Deadline: 21.4.2023

Setup: groups - 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			
Set 1														
(238) free β-hCG	[U/L]				10							10	10	100
Sample A1		26	1,6	6	10							10	10	100
(60) Roche		25,8	1,5	5,7	9	0	CVPG	25,9	0,48	15%	22	29,8	9	10
Other					1	0							1	100
							1x 24							
Sample B1		47	1,9	4,1	10							10	10	100
(60) Roche		46,9	1,1	2,4	9	0	CVPG	46,3	0,77	15%	39,3	53,3	9	100
Other					1	0							1	100
							1x 24							
(239) PAPP-A	[U/L]				13							11	11	100
Sample A1		1,29	0,11	8,3	13							11	11	100
(60) Roche		1,28	0,059	4,6	9	0	CVPG	1,32	0,027	15%	1,12	1,52	9	100
Other					4	0							2	100
							2x 24, 2x 29							
Sample B1		1,35	0,12	8,7	13							11	11	100
(60) Roche		1,33	0,1	7,8	9	0	CVPG	1,37	0,029	15%	1,16	1,58	9	100
Other					4	0							2	100
							2x 24, 2x 29							
Set 2														
(370) AFP	[μg/L]				13							11	10	91
Sample A2		26,3	3	12	13							11	10	91
(60) Roche		27,2	0,64	2,3	6	0	CVPG	27,2	1,2	20%	21,7	32,7	6	91
Other					7	0							5	91
							1x 1, 4x 12, 1x 162, 1x 179							
Sample B2		8,12	0,83	10	13							11	11	100
(60) Roche		8,23	0,42	5	6	0	CVPG	8,05	0,37	20%	6,44	9,66	6	100
Other					7	0							5	100
							1x 1, 4x 12, 1x 162, 1x 179							
(373) hCG	[kU/L]				13							9	9	100
Sample A2		24,1	5,1	21	13							9	9	100
(60) Roche		20,9	1,4	6,8	6	0	CVPG	21,3	0,63	18%	17,4	25,2	6	100
Other					7	0							3	100
							1x 1, 3x 12, 1x 29, 1x 36, 1x 179							
Sample B2		123	42	34	13							9	9	100
(60) Roche		105	8,1	7,7	6	0	CVPG	106	4,2	18%	86,9	126	6	100
Other					7	0							3	100
							1x 1, 3x 12, 1x 29, 1x 36, 1x 179							
(375) Estriol unconjug.	[nmol/L]				12							12	11	92
Sample A2		1,81	0,96	53	12							12	11	92
(12) Beckman Coulter		2,74	0,052	1,9	5	0	CVPG	2,68	0,11	33%	1,79	3,57	5	92
(29) Siemens (Immulin)		1,2	0,21	17	7	0	CVPG	1,19	0,13	33%	0,797	1,59	7	92
Sample B2		0,385	0,21	54	12							12	12	100
(12) Beckman Coulter		0,58	0,059	10	5	0	CVPG	0,57	0,045	33%	0,381	0,759	5	100
(29) Siemens (Immulin)		0,242	0,002	0,91	7	0	CVPG	0,241	0,001	33%	0,161	0,321	7	100
1. trimester														
(240) free β-hCG (MoM)	[MoM]				8							8	8	100
Mother X1		0,5	0,074	15	8							8	8	100
(60) Roche		0,525	0,037	7,1	7	0	CVPG	0,543	0,021	33%	0,363	0,723	7	100
Other					1	0							1	100
							1x 24							
Mother Y1		1,27	0,25	20	8							8	8	100
(60) Roche		1,33	0,16	12	7	0	CVPG	1,32	0,064	33%	0,884	1,76	7	100
Other					1	0							1	100
							1x 24							
(241) PAPP-A (MoM)	[MoM]				12							10	10	100
Mother X1		0,701	0,11	16	12							10	10	100
(60) Roche		0,67	0,045	6,6	8	0	CVPG	0,691	0,038	33%	0,462	0,92	8	100
Other					4	0							2	100
							2x 24, 2x 29							
Mother Y1		0,373	0,059	16	12							10	10	100
(60) Roche		0,355	0,037	10	8	0	CVPG	0,381	0,023	33%	0,255	0,507	8	100

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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			
Other					4	0	2x 24, 2x 29					2		
2. trimester														
(380) AFP (MoM)	[MoM]				13							11	10	91
Mother X2		0,744	0,094	13	13							11	10	91
(60) Roche		0,73	0,059	8,1	6	0	CVPG	0,719	0,028	23%	0,553	0,885	6	
Other					7	0		1x 1, 4x 12, 1x 162, 1x 179					5	
Mother Y2		0,209	0,031	15	13							11	10	91
(60) Roche		0,195	0,007	3,8	6	0	CVPG	0,19	0,008	23%	0,146	0,234	6	
Other					7	0		1x 1, 4x 12, 1x 162, 1x 179					5	
(382) hCG (MoM)	[MoM]				13							9	9	100
Mother X2		0,722	0,062	8,5	13							9	9	100
(60) Roche		0,685	0,052	7,6	6	0	CVPG	0,742	0,066	40%	0,445	1,04	6	
Other					7	0		1x 1, 3x 12, 1x 29, 1x 36, 1x 179					3	
Mother Y2		4,39	0,76	17	13							9	9	100
(60) Roche		4,04	0,33	8,1	6	0	CVPG	4,18	0,35	40%	2,5	5,86	6	
Other					7	0		1x 1, 3x 12, 1x 29, 1x 36, 1x 179					3	
(384) Estriol unconjug. (MoM)	[MoM]				12							12	9	75
Mother X2		0,873	0,32	37	12							12	9	75
(12) Beckman Coulter		0,87	0,074	8,5	5	0	CVPG	0,847	0,054	40%	0,508	1,19	5	
(29) Siemens (Immulite)		0,85	0,4	47	7	0	CVPG	0,823	0,22	40%	0,493	1,16	7	
Mother Y2		0,129	0,022	17	12							12	10	83
(12) Beckman Coulter		0,135	0,007	5,5	5	0	CVPG	0,144	0,015	40%	0,086	0,202	5	
(29) Siemens (Immulite)		0,115	0,022	19	7	0	CVPG	0,118	0,012	40%	0,07	0,166	7	