



Batch 43 Report - Final

Pilot schemes (MK-4, MK-7 & K<sub>1</sub>O)

Analysis period: January 2021

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Notes:

Outliers are removed for vitamin K<sub>1</sub>, MK-4 and MK-7 using Grubbs test. There is currently insufficient data from the measurement of K<sub>1</sub>O to allow removal of outliers.

There are currently no established targets for the pilot analytes, therefore Z scores are calculated using the SD from the sample round as the target.

Vitamin K<sub>1</sub> is included for comparison using the same statistical systems.

Results

Group	Vitamin K <sub>1</sub> (ug/L)		MK-4 (ug/L)		MK-7 (ug/L)		Vitamin K <sub>1</sub> O (ug/L)	
	Serum A	Serum B	Serum A	Serum B	Serum A	Serum B	Serum A	Serum B
11	0.39	0.39	8.62	5.32	19.40	11.72		
14	0.40	0.58	12.32	12.13	13.09	11.15	4.46	2.84
47			17.30	9.90	20.00	11.80	0.27	0.32
55	1.03	1.63	10.14	5.58	15.06	9.38		
56	0.69	0.72	14.80	9.40	13.50	8.50		
63	0.53	0.47	11.67	7.05	21.96	11.77		
67	0.38	0.34					10.29	4.79
69			12.63	7.80	12.91	8.11		
70	0.60	0.60	11.90	7.20	BLD	BLD		
72	0.41	0.34	11.37	5.90	17.33	9.92		
73	0.36	0.27			25.50	19.90		
79	0.49	0.56	14.20	8.75	27.10	13.90		
87			12.30	8.10	165.40	150.20		
92	0.67	0.55	21.60	14.40	11.60	7.54		
94	0.61	0.62	11.10	6.60	12.00	6.91		
96	0.62	0.63	21.38	10.13	15.56	9.61	4.36	2.09
ALTM	0.51	0.50	13.67	8.45	17.31	10.79	4.85	2.51
Median	0.53	0.56	12.31	7.95	16.45	10.54	4.41	2.47
SD	0.12	0.14	3.91	2.59	5.14	3.39	4.12	1.85
CV (%)	24	28	29	31	30	31	85	74

Z scores

	Vitamin K <sub>1</sub> (ug/L)		MK-4 (ug/L)		MK-7 (ug/L)		Vitamin K <sub>1</sub> O (ug/L)		
	Serum A	Serum B	Serum A	Serum B	Serum A	Serum B	Serum A	Serum B	
11	1.0	0.8	1.3	1.2	0.4	0.3			11
14	0.9	0.5	0.3	1.4	0.8	0.1	0.1	0.2	14
47			0.9	0.6	0.5	0.3	1.1	1.2	47
55	4.2	8.0	0.9	1.1	0.4	0.4			55
56	1.4	1.5	0.3	0.4	0.7	0.7			56
63	0.1	0.2	0.5	0.5	0.9	0.3			63
67	1.1	1.2					1.3	1.2	67
69			0.3	0.3	0.7	0.8			69
70	0.7	0.7	0.5	0.5					70
72	0.8	1.2			0.0	0.3			72
73	1.2	1.7			1.6	2.7			73
79	0.2	0.4	0.1	0.1	1.9	0.9			79
87			0.3	0.1	28.8	41.1			87
92	1.3	0.3	2.0	2.3	1.1	1.0			92
94	0.8	0.8	0.7	0.7	1.0	1.1			94
96	0.9	0.9	2.0	0.7	0.3	0.3	0.1	0.2	96

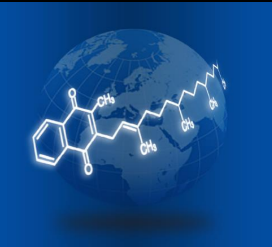
Abbreviations and definitions

ALTM: All Laboratory Trimmed Mean  
 BLD: Below Limit of Detection  
 \* Insufficient data

Outlier

Traffic Light Z Scores

Z < 2.....Satisfactory-**GREEN**  
 2 < Z < 3.....Questionable-**AMBER**  
 Z > 3.....Unsatisfactory-**RED**



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