CERTIFICATE OF PARTICIPATION

Survey of 17 March 2023

You have participated in the External Quality Assessment with the following analysis

Urine Chemistry 03 (Biogene Amines) (175):

5-Hydroxyindolea Acid
Metanephrines
Vanillylmandelic Acid

(R) analysis is subject to the RiliBÄK

Participant:
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DAkkS Deutsche Akkreditierungsstelle D-EP-15027-02-00

Gesellschaft zur Förderung der Qualitätssicherung in medizinischen Laboratorien e.V. INSTAND Qualitätskontrolle und Ringversuch DÜSSELDORF

Düsseldorf, 06 April 2023

Prof. Dr. med. Michael Spannagl
(Head of Reference Institution)

Dr. rer. nat Heike Schneider
(Adviser)

INSTAND

Listing and evaluation of the results

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Survey of 17 March 2023

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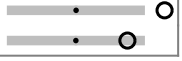
175 Urine Chemistry 03 (Biogene Amines)

Analyte	Sam-ple	Unit	**Your value**	Target value	TV-Type	Lower limit	Upper limit	Deviation	Z-Score	Meets criteria	
5-Hydroxyindolea Acid	21	µmol/l	41.4	16.3	SV	8.97	23.6	154.1%	9,27	-	
	22		155	121	SV	66.6	175	28.2%	1,9	+	
Metanephrines	21	µmol/l	2.27	0.878	SV	0.483	1.27	158.5%	7,44	-	
	22		2.15	0.524	SV	0.288	0.760	310.3%	11,5	-	
Vanillylmandelic Acid	21	µmol/l	38.1	10.3	SV	5.67	14.9	270.4%	19,9	-	
	22		6.76	5.04	SV	2.77	7.31	34.2%	1,45	+	

Analyte	Sam-ple	Your unit	Stated value	Conversion factor	Method	Manu-facturer	Device	Detection limit	dilution
5-Hydroxyindolea Acid	21	mg/l	7.92	5.23	166	ZY			
	22		29.7	5.23					
Metanephrines	21	µmol/l	2.27	1.00	166	ZY			
	22		2.15	1.00					
Vanillylmandelic Acid	21	mg/l	7.56	5.05	166	ZY			
	22		1.34	5.05					

Individual summary of results

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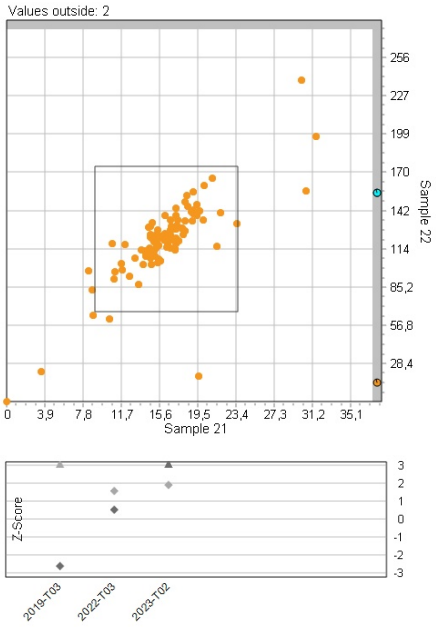
175 Urine Chemistry 03 (Biogene Amines)

5-Hydroxyindolea Acid (µmol/l, N = 105)

Collective	Sample	Target value	Target range	Participants collective AVG	CV	Num.	Rate (%) Sam.	total
all methods	21	16.3	8.97 - 23.6	16.3	16.6	105	90.5	88.6
	22	121	66.6 - 175	121	14.8	105	92.4	

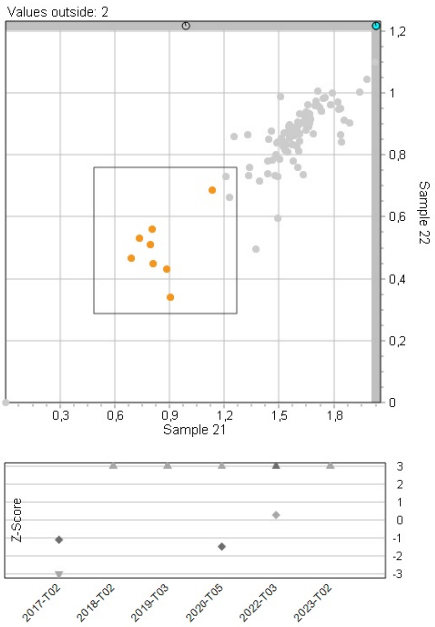
Rate of success: 88,6%



Metanephrines (µmol/l, N = 103)

Collective	Sample	Target value	Target range	Participants collective AVG	CV	Num.	Rate (%) Sam.	total
HPLC / LC-MS	21	1.60	0.880 - 2.32	1.60	8.69	94	98.9	97.9
	22	0.874	0.481 - 1.27	0.874	9.73	94	97.9	
other methods	21	0.878	0.483 - 1.27	0.878	21.3	9	88.9	88.9
	22	0.524	0.288 - 0.760	0.524	26.9	9	88.9	

Rate of success: 97,1%



Vanillylmandelic Acid (µmol/l, N = 97)

Collective	Sam-ple	Target value	Target range			Participants collective AVG	CV	Num.	Rate (%) Sam.	total
all methods	21	10.3	5.67	-	14.9	10.3	13.6	97	92.8	86.6
	22	5.04	2.77	-	7.31	5.04	23.6	97	87.6	

Rate of success: 86,6%