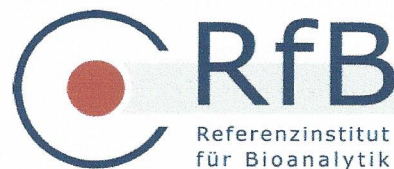


Survey: KS4/16
month: May 2016
Participant-No: 0004965
date of issue: 23.05.16



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Head of RfB

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Bonn, 13. June 2016

Certificate

We confirm that you have participated in the survey for clinical chemical analytes in serum.

You have met the requirements of the survey for the following analytes:

bilirubin, total	(2)	cholesterol	(1)	glucose	(3)
urea	(1)	creatinine	(1)	lactate	(2)
triglycerides	(2)	calcium	(3)	magnesium	(4)
CK	(1)				

This certificate is valid until the end of November 2016.

W. J. Geilenkeuser *R. Kruse* *Dr. W. J. Geilenkeuser*

The number in parentheses characterizes the analytical method used.
The assignment of the number to the respective method and/or the respective instrument is to be taken from the total evaluation.

Survey: KS4/16
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 Participant-No: 0004965



Listing and Evaluation of all your results

Explanations

Certificate

A certificate is issued (given) for an analyte only if the basis for an evaluation of the accuracy is given by the guidelines of the German Medical Association and/or if an evaluation is possible in analogy to these guidelines (see comments on the evaluation) and, if both results for an analyte are within the given acceptance limits. (marked as '+' below C)

Certificate of participation

In the participation certificate all analytes which are included in the list on this page are listed.
 If all analytes are listed on the certificate no participation certificate is printed.

Legend:	C=Certification, M=No of method, R=your result, D=difference (R-T) Dmax= maximum allowable amount of difference in measurement, partly given by annex 1 of the guideline of the BÄK (Dt. Ärzteblatt 111, Heft 38, 19.9.2014). T = target value, either reference method value or assigned value. LL UL = lower resp. upper limit	Certification: + = fulfilled (quotient D/Dmax <= 1.0) - = not fulfilled (quotient D/Dmax > 1.0) ± = certification cancelled because of technical and/or analytical reasons
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	C	M	R	D/Dmax	T	LL	UL								
bilirubin, total [mg/dl]	+	2	A	4.43	0.31	4.14	3.22	5.06							
			B	1.99	0.56	1.77	1.38	2.16							
cholesterol [mg/dl]	+	1	A	182	-0.32	190	165	215							
			B	174	0	174	151	197							
glucose [mg/dl]	+	3	A	196	-0.38	208	176	240							
			B	73.3	-0.19	75.5	64.1	86.9							
urea [mg/dl]	+	1	A	61.0	0.09	59.9	47.9	71.9							
			B	190	0.02	189	151	227							
creatinine [mg/dl]	+	1	A	2.64	-0.16	2.73	2.18	3.28							
			B	4.29	-0.24	4.51	3.60	5.42							
lactate [mmol/l]	+	2	A	4.98	0.08	4.90	4.00	5.79							
			B	2.09	0.24	2.00	1.63	2.37							
triglycerides [mg/dl]	+	2	A	143	-0.29	150	126	174							
			B	96.2	0.03	95.6	80.3	111							
calcium [mmol/l]	+	3	A	3.03	0	3.03	2.72	3.34							
			B	3.59	-0.03	3.60	3.24	3.96							
magnesium [mmol/l]	+	4	A	1.86	-0.24	1.93	1.64	2.22							
			B	0.770	0.46	0.720	0.612	0.828							
CK [U/l]	+	1	A	545	-0.24	573	458	688							
			B	537	-0.31	586	427	745							