Creatinine FS*

Diagnostic reagent for quantitative in vitro determination of creatinine in serum, plasma or urine on Sysmex BX-Series

Order information

Cat. No.	Kit size		Number of tests
1 1711 99 10 972	R1 3 x 11.8 mL	BX-3010	3 x 90 tests
		BX-4000	3 x 62 tests
	R2 3 x 5.1 mL	BX-3010	3 x 90 tests
		BX-4000	3 x 62 tests

Method

Kinetic test without deproteinization according to the Jaffé method

Principle

Creatinine forms a colored orange-red complex in an alkaline picrate solution. The difference in absorbance at fixed times during conversion is proportional to the concentration of creatinine in the sample.

Creatinine + Picric acid ⟶ Creatinine picrate complex

Reagents

Components and Concentrations

R1:	Sodium hydroxide	0.2 mol/L
R2:	Picric acid	20 mmol/L

Storage Instructions and Reagent Stability

The reagents are stable up to the end of the indicated month of expiry, if stored at 2 – 25°C, protected from light and contamination is avoided. Do not freeze the reagents!

Warnings and Precautions

1. Reagent 1: Warning. H290 May be corrosive to metals. H315 Causes skin irritation. H319 Causes serious eye irritation. P234 Keep only in original container. P264 Wash hands and face thoroughly after handling. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+P352 If on skin: Wash with plenty of water/soap. P332+P313 If skin irritation occurs: Get medical advice/attention. P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention. P390 Absorb spillage to prevent material damage.
2. Reagent 2: Warning. H290 May be corrosive to metals. P234 Keep only in original container. P280 Wear protective gloves/protective clothing/eye protection/face protection. P390 Absorb spillage to prevent material damage.
3. High homogentisic acid concentrations in urine samples lead to false results.
4. In very rare cases, samples of patients with gammopathy might give falsified results [11].
5. Eltrombopag medication leads to falsely low or high results in patient samples.
6. Please refer to the safety data sheets and take the necessary precautions for the use of laboratory reagents. For diagnostic purposes, the results should always be assessed with the patient's medical history, clinical examinations and other findings.
7. For professional use only!

Waste Management

Please refer to local legal requirements.

Reagent Preparation

The reagents are ready to use. The bottles are placed directly into the reagent rotors.

Specimen

Serum, heparin plasma or urine

Stability in serum and plasma [1]:

7 days	at	4 – 25°C
3 months	at	–20°C

Stability in urine [1]:

2 days	at	20 – 25°C
6 days	at	4 – 8°C
6 months	at	–20°C

Only freeze once! Discard contaminated specimens. TruLab Urine controls must be prediluted the same way as patient samples.

Calibrators and Controls

For calibration DiaSys TruCal U calibrator is recommended. The calibrator values have been made traceable to NIST (National Institute for Standardization) Standard Reference Material SRM 967 using level 1 and 2 and, therefore, to GC-IDMS (gas chromatography-isotope dilution mass spectrometry). For internal quality control DiaSys TruLab N, TruLab P and TruLab Urine controls should be assayed. Each laboratory should establish corrective action in case of deviations in control recovery.

	Cat. No.	Kit size
TruCal U	5 9100 99 10 063	20 x 3 mL
	5 9100 99 10 064	6 x 3 mL
TruLab N	5 9000 99 10 062	20 x 5 mL
	5 9000 99 10 061	6 x 5 mL
TruLab P	5 9050 99 10 062	20 x 5 mL
	5 9050 99 10 061	6 x 5 mL
TruLab Urine Level 1	5 9170 99 10 062	20 x 5 mL
	5 9170 99 10 061	6 x 5 mL
TruLab Urine Level 2	5 9180 99 10 062	20 x 5 mL
	5 9180 99 10 061	6 x 5 mL

Compensated method [2,3]

Picric acid which forms the coloured complex reacts unspecifically with interfering serum components, so-called pseudo-creatinines. This leads to falsely elevated creatinine values in serum and plasma samples especially in the low measuring range. To compensate these interferences the calibrator value for the compensated method indicated in the value sheet of TruCal U has to be used for calculation. Additionally 0.3 mg/dL (27 µmol/L) has to be subtracted from the calculated creatinine value.
When using the compensated method, calibration with the calibrator TruCal U is explicitly recommended. The method is applicable only for serum and plasma samples.
The compensated method is traceable to GC-IDMS.

Performance Characteristics

Measuring range up to 15 mg/dL (1326 µmol/L) creatinine in serum (in case of higher concentrations re-measure samples after manual dilution with NaCl (9 g/L) or use the rerun function)	
Limit of detection**	0.1 mg/dL (9 µmol/L) creatinine
On-board stability	4 days
Calibration stability	4 days

Interfering substance	Interferences < 10%	Analyte concentration
Ascorbate	up to 30 mg/dL	0.719 mg/dL (63.5 µmol/L)
Hemoglobin	up to 400 mg/dL	0.793 mg/dL (70.1 µmol/L)
Hemoglobin	up to 600 mg/dL	1.67 mg/dL (148 µmol/L)
Bilirubin, conjugated	up to 3 mg/dL	0.670 mg/dL (59.2 µmol/L)
Bilirubin, conjugated	up to 5 mg/dL	1.77 mg/dL (156 µmol/L)
Bilirubin, unconjugated	up to 7 mg/dL	0.900 mg/dL (79.6 µmol/L)
Bilirubin, unconjugated	up to 7 mg/dL	1.90 mg/dL (168 µmol/L)
Lipemia (triglycerides)	up to 1800 mg/dL	0.628 mg/dL (55.5 µmol/L)
Lipemia (triglycerides)	up to 1800 mg/dL	1.67 mg/dL (147 µmol/L)
For further information on interfering substances refer to Young DS [10].		

Precision (Serum) BX-4000			
Within run (n=20)	**Sample 1**	**Sample 2**	**Sample 3**
Mean [mg/dL]	0.731	1.31	7.69
Mean [µmol/L]	64.6	115	680
Coefficient of variation [%]	1.65	1.01	0.605
Between run (n=20)	**Sample 1**	**Sample 2**	**Sample 3**
Mean [mg/dL]	0.898	1.57	7.61
Mean [µmol/L]	79.4	138	672
Coefficient of variation [%]	0.798	1.16	0.866

Method comparison (n=106) Serum	
Test x	Creatinine FS (BioMajesty 6010C)
Test y	Creatinine FS (BX-4000)
Slope	0.982
Intercept	0.044 mg/dL (3.89 µmol/L)
Coefficient of correlation	0.9998

Measuring range up to 1200 mg/dL (106 mmol/L) creatinine in urine (in case of higher concentrations re-measure samples after manual dilution with NaCl (9 g/L) or use the rerun function)

Precision (Urine) BX-4000			
Within run (n=20)	**Sample 1**	**Sample 2**	**Sample 3**
Mean [mg/dL]	66.9	99.3	169
Mean [µmol/L]	5910	8781	14905
Coefficient of variation [%]	1.07	0.644	0.799
Between run (n=20)	**Sample 1**	**Sample 2**	**Sample 3**
Mean [mg/dL]	65.5	99.3	167
Mean [µmol/L]	5786	8780	14753
Coefficient of variation [%]	1.96	2.50	2.42

Method comparison (n=90) Urine	
Test x	Creatinine FS (BX-4000)
Test y	Creatinine FS (BX-3010)
Slope	0.975
Intercept	0.032 mg/dL (2.80 µmol/L)
Coefficient of correlation	0.9999

** lowest measurable concentration which can be distinguished from zero mean + 3 SD (n=20) of an analyte free specimen

Conversion factor

Creatinine [mg/dL] x 88.4 = Creatinine [µmol/L]
Creatinine [mg/dL] x 0.0884 = Creatinine [mmol/L]

Calculation of Creatinine Clearance [mL/min/1.73 m^2] [5]

$$= \frac{\text{mg Creatinine / 100 mL Urine} \times \text{mL Urine}}{\text{mg Creatinine / 100 mL Serum} \times \text{min Urine collection time}}$$

The calculated creatinine clearance refers to the average body surface of an adult (1.73 m^2).

Reference Range

Serum/plasma, Jaffé method not compensated

	mg/dL	**µmol/L**
Adults [6]		
Women	0.6 – 1.1	53 – 97
Men	0.7 – 1.3	62 – 115
Children [7,8]		
Neonate	0.5 – 1.2	44 - 106
Infant	0.4 – 0.7	35 - 62
Child	0.5 – 1.2	44 - 106

Serum/plasma, Jaffé method compensated

	mg/dL	**µmol/L**
Adults [2]		
Women	0.5 – 0.9	44 - 80
Men	0.7 – 1.2	62 - 106
Children [9]		
Neonate	0.24 – 1.04	21 – 92
Infant	0.17 – 0.42	15 – 37
Child	0.24 – 0.87	21 - 77

Urine

24h urine [6]

Women	11 – 20 mg/kg/24h	97 – 177 µmol/kg/24h
Men	14 – 26 mg/kg/24h	124 – 230 µmol/kg/24h

Albumin/creatinine ratio (early morning urine) [12]**:**
< 30 mg/g Creatinine

Creatinine clearance [7]

Women	95 – 160 mL/min/1.73 m^2
Men	98 – 156 mL/min/1.73 m^2

Each laboratory should check if the reference ranges are transferable to its own patient population and determine own reference ranges if necessary.

Literature

1. Guder WG, Zawta B. Recommendations of the Working group on Preanalytical Quality of the German Society for Clinical Chemistry and the German Society for Laboratory Medicine: The Quality of Diagnostic Samples. 1st ed Darmstadt: GIT Verlag 2001; p. 24-5,50-1
2. Mazzachi BC, Peake MJ, Ehrhardt V. Reference Range and Method Comparison Studies for Enzymatic and Jaffé Creatine Assays in Plasma and Serum and Early Morning Urine. Clin. Lab. 2000; 46: 53-55.
3. Swanson AF, Swartzentruber M, Nolen PA et al. Multicenter Evaluation of the Boehringer Mannheim Compensated, Rate-Blanked Creatinine/Jaffe Application on BM/Hitachi Systems. Advances in Clinical Diagnostics. 1993. Boehringer Mannheim Corporation.
4. Levey AS, Coresh J, Greene T, Marsh J et al: Expressing the Modification of Diet in Renal Disease Study Equation for Estimating Glomerular Filtration Rate with Standardized Serum Creatinine Values. Clin Chem 2007; 53 (4): 766-72.
5. Junge W, Wilke B, Halabi A, Klein G. Determination of reference intervals for serum creatinine, creatinine excretion and creatinine clearance with an enzymatic and a modified Jaffé method. Clin Chim Acta 2004; 344: 137-148
6. Newman DJ, Price CP. Renal function and nitrogen metabolites. In: Burtis CA, Ashwood ER, editors. Tietz Textbook of Clinical Chemistry. 3rd ed. Philadelphia: W.B Saunders Company; 1999. p. 1204-1270.
7. Thomas L. Clinical Laboratory Diagnostics. 1st ed. Frankfurt: TH-Books Verlagsgesellschaft; 1998. p. 366-74.
8. Soldin SJ, Brugnara C, Wong EC, eds. Pediatric Reference Intervals. 6th ed. AACC Press, 2007: p. 77-78
9. Schlebusch H, Liappis N, Klein G. Ultrasensitive CRP and Creatinine: Reference intervals from infancy to childhood. Clin Chem Lab Med. 2001; 39 Special supplement pp S1-S448; May 2001. PO-T042
10. Young DS. Effects of Drugs on Clinical Laboratory Tests. 5th ed. Volume 1 and 2. Washington, DC: The American Association for Clinical Chemistry Press 2000.
11. Bakker AJ, Mücke M. Gammopathy interference in clinical chemistry assays: mechanisms, detection and prevention. ClinChemLabMed 2007;45(9):1240-1243.
12. Dati F, Metzmann E. Proteins-Laboratory testing and clinical use. 1st ed. Holzheim: DiaSys Diagnostic Systems; 2005: p. 93.

Manufacturer

IVD CE

DiaSys Diagnostic Systems GmbH
Alte Strasse 9 65558 Holzheim Germany

Creatinine FS

Chemistry Code 100 27

Chemistry Parameters 1

Sysmex BX-3010 Chemistry Analyzer
Analytical Parameters

Method No.	*	Method Name	CREAJ	Reagent Name	Reagent (µL)	Water (µL)
Print Name	Creatinine	MethodColor		R1 CREAJ	150	
Sample Type	Serum			R2 CREAJ	38	
Unit	mg/dL			Diluent	Disable	
Assay Type	Rate			Sample Ppt. Wash	Disable	

Measuring points

	Start	End
1	29	38
2	Disable	

Stirring Speed R1: Middle R2: Middle

Wave Length: Prim. 510 Sec. 570

Normal Range

No.	Normal Range Name	Min	Max
1	Male-G1	*	*
2	Male-G2	*	*
3	Male-G3	*	*
4	Female-G1	*	*

	Normal Sample Volume (µL) Low	< Normal	< High	Diluted Sample (µL)	Diluent (µL)
☐ Diluent	0.0	9.5	0.0		
Rerun (High/Prozone) ☐ Diluent	0.0	9.5	0.0		
Rerun (Low) ☐ Diluent	0.0	9.5	0.0		

Technical Range: (Conc) 0.10 – 15.00; (mAbs/10) * – *

Previous Result Comparison (%): * – * %

Abnormal Range (Conc): * – *

Panic Range (Conc): 0.10 – 15.00

Decimal Point: 2 Profile SI: Disable

***Entered by user**

Chemistry Parameters 2

Sysmex BX-3010 Chemistry Analyzer
Analytical Parameters

Method No. * Method Name CREAJ Sample Serum

Limit Checks

- ✓ Duplicate Limit: 20 mAbs/10
- ✓ Sensitivity Limit: 200 mAbs/10
- ✓ Linearity Limit: 10 %
- 140 (mAbs/10)/min
- ☐ Prozone Limit: Higher %
- SL1-S – SL1-F
- SL2-S – SL2-F
- Sensitivity mAbs/10
- ✓ Absorbance Limit
  Abs. in reaction: Increase
  Limit: 8000 mAbs/10

Blank measurement

Blank measurement: Disable reagent blank and C1 blank

Measurement of Reagent Blank during Run: None

Reagent blank measurement at calibration: Reagent blank (No sample)

The number of measurement: Duplicate

Reagent blank limit checks:
- ✓ Duplicate Limit: 10 mAbs/10

Instrument Factor

a 1.00 b 0.00

Creatinine FS

Chemistry Code 100 27

Calibration Registration

Sysmex BX-3010 Chemistry Analyzer
Analytical Parameters

Method No. *

Method Name CREAJ

Sample Type Serum

Replication Duplicate

Check Interval 4

Test without calibration: Disable

Calibration Type Linear

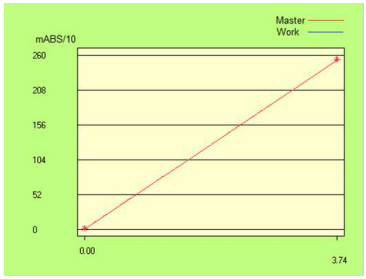
Reagent Lot New Add

Calibrator Name TruCal U

	Conc.	WORK	MASTER	Calibr. Lot No.	☐ All
C1	0	Automatic entry	Automatic entry	*	
C2	*	Automatic entry	Automatic entry	*	
C3	*				
C4	*				
C5	*				
C6	*				
C7	*				

K Automatic entry ☐ C1 Blank ☐ Reagent Blank for C1

Reagent Lot No.
(R1) *
(R2) *
Last



The calibration curve is lot dependent

Reagent blank mAbs/10 Last

Blank Automatic entry mAbs/10 Last

Calibration Curve Conc.

Absorbance mAbs/10 Recalculation

***Entered by user**

Creatinine FS

Chemistry Code 100 27

Chemistry Parameters

Sysmex BX-4000 Chemistry Analyzer
Analytical Parameters

Method	*	Name	CREAJ		Reagent Name	Reagent (µL)	Water (µL)
Print Name	Creatinine			R1	CREAJ	150	
Sample	Serum			R2 ✓ Enable	CREAJ	38	
Unit	mg/dL						
Assay Type	Rate			Diluent ☐ Enable			

Measuring points — Start — End — Decimal Points: 2

	1	42	–	54
☐ Enable	2		–	

Wave Length: Prim. 510 Sec ☐ Disable 570

Normal Range

No.	Normal Range Name	Min	Max
1	Male-G1	*	*
2	Male-G2	*	*
3	Male-G3	*	*
4	Female-G1	*	*

	Sampling	Sample (µL)	Diluent (µL)
Normal Dilution	9.5		
Rerun (High/Prozone) Dilution	9.5		
Rerun (Low) Dilution	9.5		

Technical Range: (Conc) 0.10 – 15.00; (mAbs/10) –

SPT Wash ☐ Enable — Reagent Name

Stirring Speed: R1 Middle R2 Middle

***Entered by user**

Chemistry Parameters

Sysmex BX-4000 Chemistry Analyzer
Analytical Parameters

Method No. * Name CREAJ Sample Serum

Limit Checks

✓ Duplicate Limit	20	mAbs/10		
✓ Sensitivity Limit	200	mAbs/10		
✓ Linearity Limit	10	%	140	(mAbs/10)/min
☐ Prozone Limit		%	Upper	
SL1-S		–	SL1-F	
SL2-S		–	SL2-F	
Sensitivity		mAbs/10		
✓ Absorbance Limit				
Reaction	Increase			
Limit	8000	mAbs/10		

Blank measurement

Blank measurement: Disable reagent blank and S1 blank

Measurement of Reagent Blank during Run: None

Reagent blank measurement at calibration: Reagent blank (No sample)

The number of measurement: Duplicate

Reagent blank limit checks: ✓ Duplicate Limit 10 mAbs/10

Instrument Factor: a 1.00 b 0.00

Creatinine FS

Chemistry Code 100 27

Registration Calibration

Sysmex BX-4000 Chemistry Analyzer
Analytical Parameters

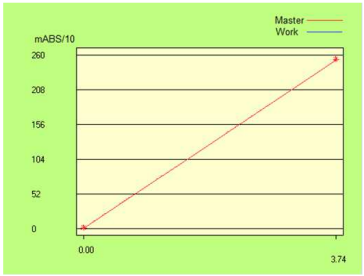
Method	*	Name	CREAJ
Sample	Serum		
Sampling	Duplicate		
Check Interval	4	days	
Auto	Change Lot		Full Calibration
Auto Interval		hours	
Type	Linear	Lot	New
Material Name	TruCal U		

	Conc.	WORK	MASTER	Lot No. (S) ☐ All
S1	0	Automatic entry	Automatic entry	
S2	*	Automatic entry	Automatic entry	
S3	*			
S4	*			
S5	*			
S6	*			
S7	*			

K Automatic entry ☐ S1 Blank ☐ Reagent Blank for S1

***Entered by user**

R Lot No. R1 * Last
R2 *



The calibration curve is lot dependent

Reagent blank		mAbs/10	Last	
Blank	Automatic entry	mAbs/10	Last	
Type			Conc.	
Absorbance		mAbs/10	Recalculation	

Creatinine FS

Chemistry Code 100 27

Chemistry Parameters 1

Sysmex BX-3010 Chemistry Analyzer
Analytical Parameters

Method No.	*	Method Name	CREAJ	Reagent Name	Reagent (µL)	Water (µL)
Print Name	Creatinine	MethodColor		R1	CREAJ	150	
Sample Type	Urine			R2	CREAJ	38	
Unit	mg/dL			Diluent	Disable		
Assay Type	Rate			Sample Ppt. Wash	Disable		

Measuring points

	Start		End
1	29	–	38
2	Disable	–	

Stirring Speed R1: Middle R2: Middle

Wave Length: Prim. 510 Sec. 570

Normal Range

No.	Normal Range Name	Min	Max
1	Male-G1	*	*
2	Male-G2	*	*
3	Male-G3	*	*
4	Female-G1	*	*

	Normal Sample Volume (µL) Low	<	Normal	<	High	Diluted Sample (µL)	Diluent (µL)
☐ Diluent	0.0	<	9.5	<	0.0	4.0	196
Rerun (High/Prozone)							
☐ Diluent	0.0	<	9.5	<	0.0	4.0	196
Rerun (Low)							
☐ Diluent	0.0	<	9.5	<	0.0	4.0	196

Technical Range
(Conc) 0.10 – 1200
(mAbs/10) * – *

Previous Result Comparison (%): * – * %

Abnormal Range (Conc): * – *

Panic Range (Conc): 0.10 – 1200

Decimal Point: 2 Profile SI: Disable

***Entered by user**

Chemistry Parameters 2

Sysmex BX-3010 Chemistry Analyzer
Analytical Parameters

Method No. * Method Name CREAJ Sample Serum

Limit Checks

- ✓ Duplicate Limit: 20 mAbs/10
- ✓ Sensitivity Limit: 200 mAbs/10
- ✓ Linearity Limit: 10 %
  140 (mAbs/10)/min
- ☐ Prozone Limit: Higher %

SL1-S – SL1-F
SL2-S – SL2-F
Sensitivity mAbs/10

- ✓ Absorbance Limit
  Abs. in reaction: Increase
  Limit: 8000 mAbs/10

Blank measurement

Blank measurement: Disable reagent blank and C1 blank

Measurement of Reagent Blank during Run: None

Reagent blank measurement at calibration: Reagent blank (No sample)

The number of measurement: Duplicate

Reagent blank limit checks:
- ✓ Duplicate Limit: 10 mAbs/10

Instrument Factor

a 1.00 b 0.00

Creatinine FS

Chemistry Code 100 27

Calibration Registration

Sysmex BX-3010 Chemistry Analyzer
Analytical Parameters

Method No. *

Method Name CREAJ

Sample Type Urine

Replication Duplicate

Check Interval 4

Test without calibration

Disable

Calibration Type Linear

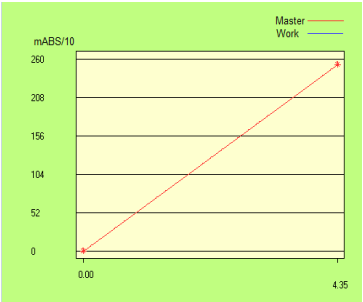
Reagent Lot New Add

Calibrator Name TruCal U

	Conc.	WORK	MASTER	Calibr. Lot No.	☐ All
C1	0	Automatic entry	Automatic entry	*	
C2	*	Automatic entry	Automatic entry	*	
C3	*				
C4	*				
C5	*				
C6	*				
C7	*				

K Automatic entry ☐ C1 Blank
☐ Reagent Blank for C1

Reagent Lot No.
(R1) *
(R2) *
Last



The calibration curve is lot dependent

Reagent blank mAbs/10 Last

Blank Automatic entry mAbs/10 Last

Calibration Curve Conc.

Absorbance mAbs/10 Recalculation

***Entered by user**

Creatinine FS

Chemistry Code 100 27

Chemistry Parameters

Sysmex BX-4000 Chemistry Analyzer
Analytical Parameters

Method	*	Name	CREAJ		Reagent Name	Reagent (µL)	Water (µL)
Print Name	Creatinine			R1	CREAJ	150	
Sample	Urine			R2 ✓ Enable	CREAJ	38	
Unit	mg/dL						
Assay Type	Rate			Diluent ☐ Enable			

Measuring points		Start		End	Decimal Points	2
	1	42	–	54		
☐ Enable	2		–			

Wave Length
Prim. 510 Sec ☐ Disable 570

Normal Range

No.	Normal Range Name	Min	Max
1	Male-G1	*	*
2	Male-G2	*	*
3	Male-G3	*	*
4	Female-G1	*	*

	Sampling	Sample (µL)	Diluent (µL)	Technical Range
☐ Normal Dilution	9.5	4.0	196	4.0
☐ Rerun (High/Prozone) Dilution	9.5	4.0	196	4.0
☐ Rerun (Low) Dilution	9.5	4.0	196	4.0

(Conc) 0.10 – 1200
(mAbs/10) –

SPT Wash ☐ Enable — Reagent Name

Stirring Speed R1 Middle R2 Middle

***Entered by user**

Chemistry Parameters

Sysmex BX-4000 Chemistry Analyzer
Analytical Parameters

Method No. * Name CREAJ Sample Urine

Limit Checks

✓ Duplicate Limit	20	mAbs/10		
✓ Sensitivity Limit	200	mAbs/10		
✓ Linearity Limit	10	%	140	(mAbs/10)/min
☐ Prozone Limit		%	Upper	
SL1-S		–	SL1-F	
SL2-S		–	SL2-F	
Sensitivity		mAbs/10		

✓ Absorbance Limit

Reaction Increase

Limit 8000 mAbs/10

Blank measurement

Blank measurement:
Disable reagent blank and S1 blank

Measurement of Reagent Blank during Run:
None

Reagent blank measurement at calibration:
Reagent blank (No sample)

The number of measurement:
Duplicate

Reagent blank limit checks:
✓ Duplicate Limit 10 mAbs/10

Instrument Factor

a 1.00 b 0.00

Creatinine FS

Chemistry Code 100 27

Registration Calibration

Sysmex BX-4000 Chemistry Analyzer
Analytical Parameters

Method: * | Name: CREAJ

Sample: Urine

Sampling: Duplicate

Check Interval: 4 days

Auto: Change Lot | Full Calibration

Auto Interval: hours

Type: Linear | Lot: New

Material Name: TruCal U

	Conc.	WORK	MASTER	Lot No. (S) ☐ All
S1	0	Automatic entry	Automatic entry	
S2	*	Automatic entry	Automatic entry	
S3	*			
S4	*			
S5	*			
S6	*			
S7	*			

K: Automatic entry ☐ S1 Blank ☐ Reagent Blank for S1

***Entered by user**

R Lot No. R1: * R2: * Last:

The calibration curve is lot dependent

Reagent blank: mAbs/10 Last:

Blank: Automatic entry mAbs/10 Last:

Type: Conc.:

Absorbance: mAbs/10 Recalculation