STAR HUMAN Sciences Pvt. Ltd.
25-B/7, New Rohtak Road, Karol Bagh, New Delhi - 110005, India
Tel : +91-11-28721843, Mob. : 9873686675, 9810028448
E-mail : info@starhuman.in, www.starhuman.in

CERTIFICATE OF CALIBRATION

Naranyan Pathology & Biopsy Centre
117/22, Sarvodya Nagar
(Opp J.L Rohtagi Eye Hospital Near Baba Bhothnath Ashram)
Kanpur-208005

This is to certify that the instrument **Humastar 200 Biochemistry Analyzer** bearing serial no. 21191146004 manufactured by **HUMAN GERMANY** is in full working and has been calibrated to the standard specifications for the period of 09th December2021 to 8th December 2022

Date of calibration: 09-12-2021

This calibration certificate is valid up to 08-12-2022

For Star Human Sciences Pvt. Ltd.

(Authorized Signatory)

Technical Calibration Detail

HS200

S. no. 21191146004

ITEMS	value	Target range
Lamp		
mV @ 340 nm	1230	900-1500
Current mV	6.5	OK
Efficiency@340	69	54-130
Pump		
Pump 1-5 volume uL	In range	220-520
Pump 1-5 flow rate uL/Sec	OK	550-850

Other mechanical parameters in OS are in range as per standard criteria.

09/12/2021

Dated-09-Dec-2021

Service Engineer

For Star Human Sciences Pvt. Ltd.

Performance Qualification
HumaStar 100, HumaStar 200, HumaStar 300SR and HumaStar 600

Revision list

Revision	Date	Description	Editor
1	2018/08/14	First revision	Silvia Fischer

Lab Name
Narayan Pathology And Biopsy Centre
Add- 117/22 Sarvodaya Nagar Kanpur

Contents

Introduction

With the Performance Qualification we assure that HumaStar 100/200/300SR/600 will work under real life conditions (in the lab of the customer) according Human specifications.
All assays the customer is supposed to use should be checked during this test. The PQ can be done during the end user training or ahead in the laboratory of the customer.
For each test calibration, QC (two levels) and precision should be measured and analysed to check if the results are in the specification of Human.
If non Human reagents are used, the Performance Qualification should be done with Human reagents according the IFU (using Human calibrator and QC material)

1. Special materials

- Wash additive (18971) – All HumaStar Systems
- Special wash solution (18974) – HS 100/200
- Special wash solution-2 (18974/2) – HS 300SR
- Cuvette Clean (16663/20) – HS 600
- 0.9% NaCl solution – HS 100/200
- Diluent (16663/10) – HS300SR/600

1.1. Customer using Human reagents

All reagents, calibrator and QC material which the customer has chosen for the routine.

1.2. Customer using non Human reagents

- AutoCal (Ref 13160)
- Serodos (Ref 13951)
- HumaTrol P (Ref 13512)
- GLUCOSE liquicolor reagent (Ref 10121 – HS 100/200; Ref 10260300 – HS 300SR/600)
- CALCIUM liquicolor reagent (Ref 10011 – HS 100/200; Ref 10011300 – HS 300SR/600)
- GOT (ASAT) IFCC mod. liquidUV (Ref 12211 – HS 100/200; Ref 12021300 – HS 300SR/600)

2. Accompanying documents

A) User Manuals (last revision, please check Human web page)
B) Application sheets (on the PC)
C) Package inserts (in the kits)

3. Performance quality checks

Step	Check	Expected result	Result	Final remark
1	Maintenance (perform all user maintenance)	All maintenance tasks finish without an error	DONE	OKAY
1	Calibration	Calibration factors should be in the specified range	IN RANGE	DONE
2	Quality Control	Both QC samples should be in range given by Human	IN RANGE	DONE

Step	Check	Expected result	Result	Final remark
3	Precision (n= 20), a Qc sample can be used	The CV in % for each test should be in the specified range	In all text < cv=3.1%	OKAY

4. Documentation

Please document all results in an additional document (excel file).

5. Calculation of the CV

Evaluate the results as following:

$$\text{mean} = \sum_{i=1}^{10} \text{sample i}$$

$$\text{SD} = \sqrt{\frac{\sum_{i=1}^{10}(\text{sample i} - \text{mean})^2}{9}}$$

$$\text{CV\%} = \frac{\text{SD} * 100}{\text{mean}}$$

Easy to calculate in an EXCEL sheet using the appropriate formulas.

See also example below

6. Example for calculations in EXCEL

	A	B	C	D
1		target	min.	max.
2	Serodos	8,33	7,41	9,24
3				
4	sample 1	8,4		
5	sample 2	8,3		
6	sample 3	8,5		
7	sample 4	8,0		
8	sample 5	8,2		
9	sample 6	8,2		
10	sample 7	8,4		
11	sample 8	8,2		
12	sample 9	9,3		
13	sample 10	8,4		
14	mean	8,4		
15	SD	0,35		
16	CV%	4,18		
17	single value <> 20% mean?	0		
18	mean within reference range?	yes		
19	CV% < 5%?	yes		

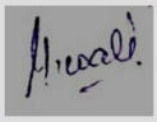
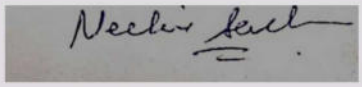
Cell	Function
A14	=AVERAGE(B4:B13)
A15	=STDEV(B4:B13)
A16	=B15*100/B14
A17	=COUNTIFS(B4:B13,"<"&(B14-(B14*0.2)))+COUNTIFS(B4:B13,">"&(B14+(B14*0.2)))
A18	=IF(ISNUMBER(B4)=FALSE,"",IF(B14>D2,"no",IF(B14<C2,"no","yes")))
A19	=IF(ISNUMBER(B4)=FALSE,"",IF(B16<=5,"yes","no"))

7. Closure

Study data has determined that the system described in this document meets all criteria outlined in this Performance Qualification protocol. All exceptional conditions if any have been addressed. The system is ready for specific usage.

☑ The analyzer passed the performance quality check.

☐ The analyzer didn't pass the performance quality check (see additional notes).

System	☐ HumaStar 100 ☑ HumaStar 200 ☐ HumaStar 300 SR ☐ HumaStar 600	Serial Number: 21191146004 SW Version: 0.44.2.15 Setting-Database Version: 1.36
Date 30-NOV-2019	Service engineer / Application Specialist (printed name) MUBASHIR WALI	Service engineer / Application Specialist (signature) 
Date 30-NOV-2019	Lab Manager (printed name) NEELIMA SACHAN	Lab Manager (signature) 

8. Additional notes

HumaStar 100
HumaStar 200 ✓
HumaStar 300SR
Installation quality check

Revision list

Revision	Date	Description	Editor
1	2016/02/26	First revision	Mathias Kamprath
2	2018/06/20	Review and extension to HumaStar 300SR	Mathias Kamprath
3	2019/01/28	Repetition of all calibration steps added	Mathias Kamprath
4	2019/02/22	Serial number field added	Mathias Kamprath

Lab Name Narayan Pathology And Biopsy Centre
Add- 117/22 Sarvodaya Nagar Kanpur

Special tools

Volt meter or multi meter (V and mV). E. g. Human catalog number 60200224

Accompanying documents

A) HSB_Power_Surge_Protector_&_online_UPS_incl. ground check.pdf
B) HumaStar 100/200 Service Manual, revision 04/2015/09
C) HumaStar 300SR Service Manual, revision 01/2018-FEB-09
D) Touch screen monitor documentation (optional)
E) Printer documentation (optional)

Installation quality check

Step	Check	Expected result	Result	Final remark
		Main power supply		
1	Measure the grounding voltage between neutral and ground of the main power line. See document A).	Less than 2V.	1.3v	OKAY

Step	Check	Expected result	Result	Final remark
2	Connect the power surge protector socket to the main power. If the EU plug doesn't fit use either the UK or the US adapter. See document A).	Green and red LEDs are on.	SUPPLY OKAY	DONE
3	Connect the on-line UPS to one of the power protection sockets and switch on the on-line UPS. See document A).	The on-line UPS starts charging the battery. The wrong wiring alarm is off. Wait for 100% charge of the battery before switching on the analyzer.	CONNECTED	OKAY
Installation of the analyzer, PC (incl. mouse and keyboard), external barcode scanner (HumaStar 300SR) monitor (touch screen optional), printer (optional) and bottles for system solution (blue), special wash solution (green), normal waste (red) and special waste (yellow, HumaStar 300SR)				
4	Place the analyzer on a work bench. Remove all transportation protection for the: • top cover, • sampling arm(s), • internal barcode reader cover (HumaStar 100/200), • wash station top cover (HumaStar 200).	Enough space (150 mm recommended) on the left, rear and right side and approx. 55-60 mm underneath. The analyzer is horizontally aligned.	ALL DONE	OKAY
5	Place the other electronic components on the right side of the analyzer. (recommended)		PLACED	DONE
6	Place the system solution, special wash solution, normal waste and special waste (HumaStar 300SR) bottles on the left side of the analyzer. (recommended)		PLACED AT BOTTOM	DONE

Step	Check	Expected result	Result	Final remark
7	Establish all connections.	As described in document B) "2.3.5 Installation" (HumaStar 100/200) or document C) "3.3.5 Installation" (HumaStar 300SR).	ESTABLISHED	DONE
8	Switch on the analyzer.	The inner plate shakes three times, the peristaltic pump 7 (and 9, HumaStar 300SR) turn for a second and the pinch valve(s) switch on and off.	SWITCHED ON	DONE
9	Connect the external barcode scanner (HumaStar 300SR) to the PC.		N/A	N/A
10	Switch on the monitor and the PC.	Log on as "Support" user. If not pre-installed, install the HI software as described in document B) "18 HI Software installation/update" (HumaStar 100/200) or document C) "8 HI Software installation" (HumaStar 300SR).	SWITCHED ON INSTALLED HI	DONE
11	Touch screen monitor and printer only.	If not pre-installed, install the driver(s) as described in the accompanying documentation D) and E).	N/A	N/A
12	Start the HI program as "Installer".	Analyzer connects to the HI software.	STARTED	DONE
13	Go to the Terminal program and repeat all calibration steps. HS100/200: 21 steps HS300SR: 39 steps	Every calibration step has to be finished successfully.	SUCCESFULLY DONE	DONE

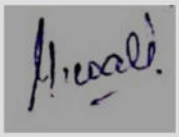
Closure

Serial number of the analyzer: 2 1 1 9 1 1 4 6 0 0 4

☑ The analyzer passed the installation quality check.

☐ The analyzer didn't pass the installation quality check.

Note the next steps to get the analyzer in condition to pass the installation quality check.

Date	Service engineer (printed name)	Service engineer (signature)
30-NOV-2019	MUBASHIR WALI	

1. Additional notes

HumaStar 100
HumaStar 200
HumaStar 300SR
Operation quality check

Revision list

Revision	Date	Description	Editor
1	2016/02/26	First revision	Mathias Kamprath
2	2016/03/02	SD formula and EXCEL example changed	Mathias Kamprath
3	2018/06/20	Review and extension to HumaStar 300SR	Mathias Kamprath
4	2019/02/22	Serial number field added	Mathias Kamprath

Lab Name Narayan Pathology And Biopsy Centre
Add- 117/22 Sarvodaya Nagar Kanpur

Special materials

- Wash additive (18971)
- Special wash solution (18974)
- 0.9% NaCl solution
- Serodos control (13951)
- HumaTrol P control (13512)
- AutoCal multi-calibrator (13160)
- Glucose liquicolor reagent
- Calcium liquicolor reagent

Accompanying documents

A) HumaStar 100/200 User Manual, revision 02/2013-03
B) HumaStar 100/200 Service Manual, revision 04/2015/09
C) HumaStar 300SR User Manual, revision 02/2017-11
D) HumaStar 300SR Service Manual, revision 01/2018-FEB-09

Operation quality check

Step	Check	Expected result	Result	Final remark
1	Prepare the system solution, the special wash solution and the dilution bottles.	PREPARED	OKAY	DONE
2	Switch on the analyzer and run the start-up procedure.	No error messages. All cuvettes shown in green in HI > Maintenance > reaction cuvettes (HumaStar 100/200) or HI > Maintenance > Special > Reaction cuvettes (HumaStar 300SR].	NO MESSAGE ALL GREEN	DONE
3	Prepare the AutoCal multi-calibrator and the two controls Serodos and HumaTrol.	Place a cup of AutoCal, Serodos and HumaTrol on the sample tray.	PREPARED & PLACE	DONE
4	Prepare the Glucose and/or GOT and/or Calcium reagent(s). GLU & GOT	Place the reagent bottle(s) on the reagent tray and run the level check. All volumes have to be recognized.	PLACED & CHECKED THE LEVEL	DONE
5	Use Serodos as sample material.	Place a cup of "sample" material on the sample tray. When all tests are to be performed, better place two cups on the sample tray.	PLACED 2 CUPS	DONE
6	Generate a work list.	Per reagent the "sample" material has to be tested 10 times.	PLACED THE SAMPLE	DONE
7	Run the work list.		RUN	DONE

Step	Check	Expected result	Result	Final remark
8	Evaluate the results as following: $\text{mean} = \sum_{i=1}^{10} \text{sample i}$ $\text{SD} = \sqrt{\frac{\sum_{i=1}^{10}(\text{sample i} - \text{mean})^2}{9}}$ $\text{CV\%} = \frac{\text{SD} * 100}{\text{mean}}$ Easy to calculate in an EXCEL sheet using the appropriate formulas. See also 6. Example for calculations in EXCEL.	The mean of all ten "sample" results has to be in the reference range of the Serodos control. The CV% has to be less than 5%. Only one "sample" result may deviate more than +/- 20% from the mean. The mean and the SD of the remaining nine results have to be recalculated.	GLU CV= 2.5% SGOT CV= 1.8%	OKAY

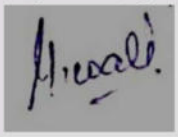
Closure

Serial number of the analyzer: 2 1 1 9 1 1 4 6 0 0 4

☑ The analyzer passed the operation quality check.

☐ The analyzer didn't pass the operation quality check.

Note the next steps to get the analyzer in condition to pass the operation quality check.

Date	Service engineer (printed name)	Service engineer (signature)
30-NOV-2019	MUBASHIR WALI	

Additional notes

Example for calculations in EXCEL

	A	B	C	D
1		target	min.	max.
2	Serodos	8,33	7,41	9,24
3				
4	sample 1	8,4		
5	sample 2	8,3		
6	sample 3	8,5		
7	sample 4	8,0		
8	sample 5	8,2		
9	sample 6	8,2		
10	sample 7	8,4		
11	sample 8	8,2		
12	sample 9	9,3		
13	sample 10	8,4		
14	mean	8,4		
15	SD	0,35		
16	CV%	4,18		
17	single value <> 20% mean?	0		
18	mean within reference range?	yes		
19	CV% < 5%?	yes		

Cell	Function
A14	=AVERAGE(B4:B13)
A15	=STDEV(B4:B13)
A16	=B15*100/B14
A17	=COUNTIFS(B4:B13,"<"&(B14-(B14*0.2)))+COUNTIFS(B4:B13,">"&(B14+(B14*0.2)))
A18	=IF(ISNUMBER(B4)=FALSE,"",IF(B14>D2,"no",IF(B14<C2,"no","yes")))
A19	=IF(ISNUMBER(B4)=FALSE,"",IF(B16<=5,"yes","no"))

Training Certificate

This is to certify that

Ms Smriti Gupta
Has been trained on

Humastar 200

Model of Humastar 200 Biochemistry Analyzer
The training was conducted by Product Experts

Narayan Pathology & Biopsy Centre

117/22, Sarvodya Nagar
Opp J.L RohtagiEye Hospital Near Baba Bhoothnath Ashram
Kanpur-208005

Dated: 16-12-2019

Star Human SciencesPvt. Ltd.
New Delhi, INDIA -110 005

Training Certificate

This is to certify that

Mr Ranjeet Kumar
Has been trained on

Humastar 200

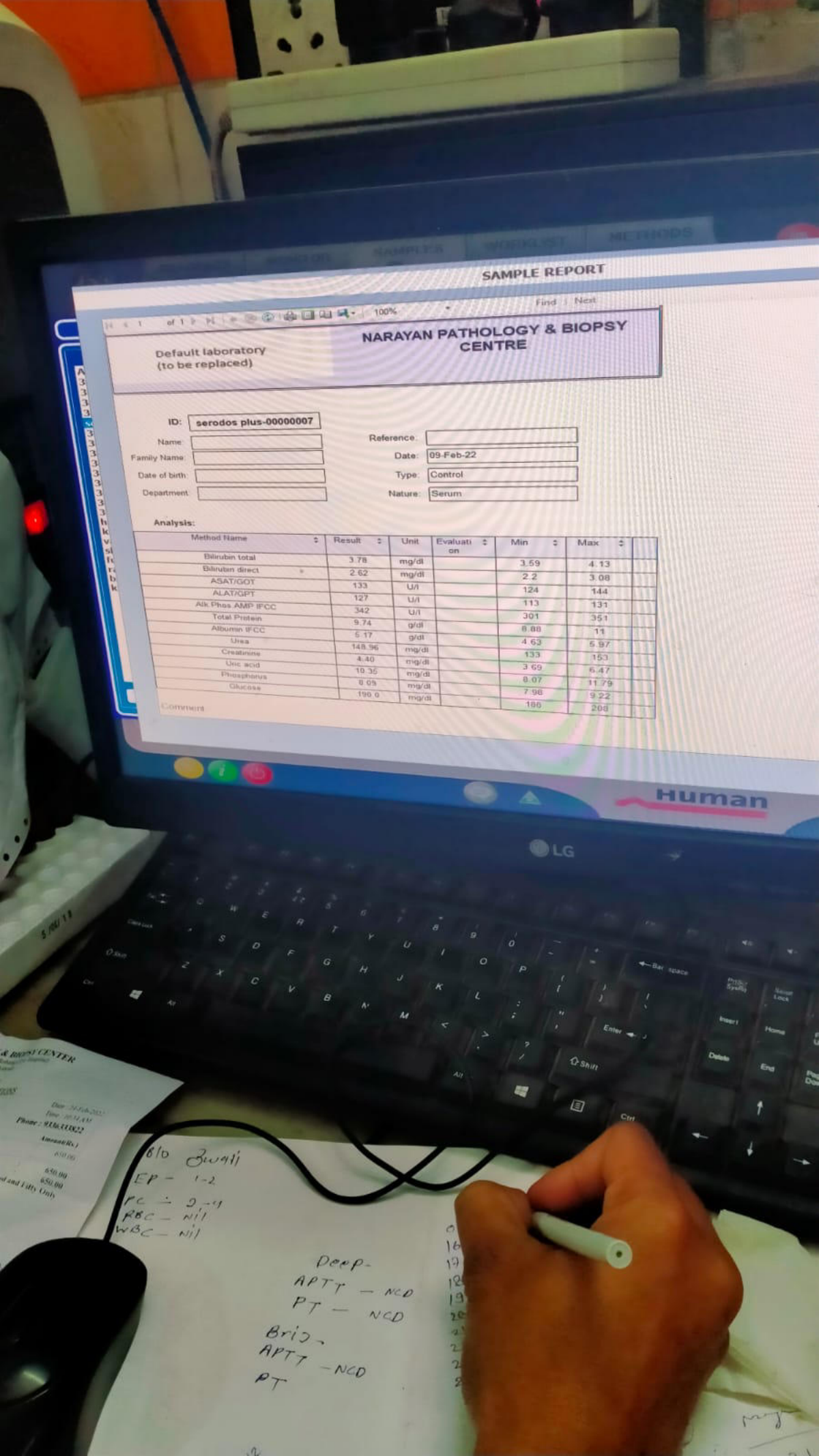
Model of Humastar 200 Biochemistry Analyzer
The training was conducted by Product Experts

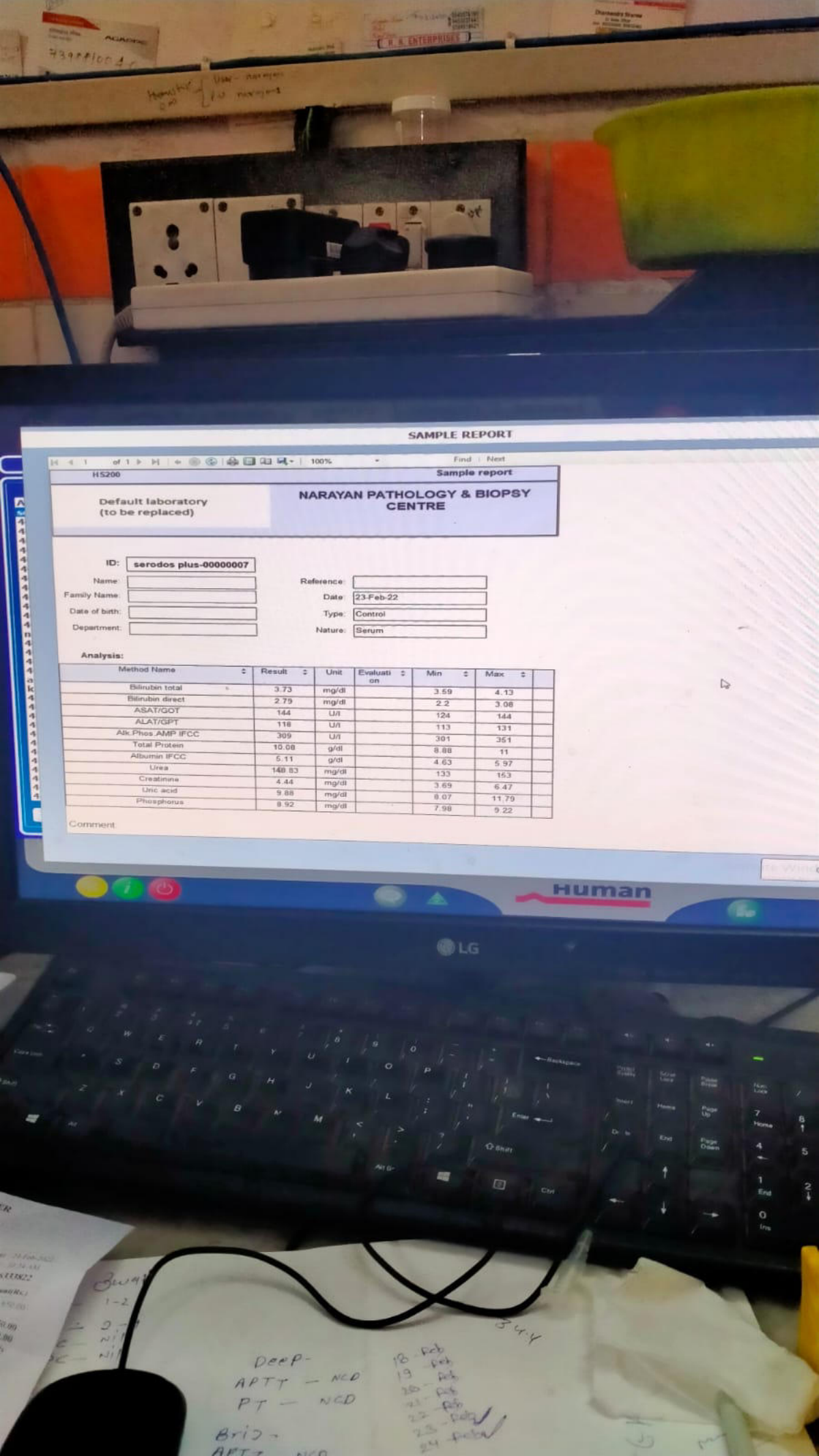
Narayan Pathology & Biopsy Centre

117/22, Sarvodya Nagar
Opp J.L RohtagiEye Hospital Near Baba Bhoothnath Ashram
Kanpur-208005

Dated: 16-12-2019

Star Human SciencesPvt. Ltd.
New Delhi, INDIA -110 005


SAMPLE REPORT
Find | Next
NARAYAN PATHOLOGY & BIOPSY CENTRE
Default laboratory
(to be replaced)
ID: serodos plus-00000007
Name:
Family Name:
Date of birth:
Department:
Reference:
Date: 09-Feb-22
Type: Control
Nature: Serum
Analysis:
Method Name | Result | Unit | Evaluation | Min | Max
Bilirubin total | 3.78 | mg/dl | | 3.59 | 4.13
Bilirubin direct | 2.62 | mg/dl | | 2.2 | 3.08
ASAT/GOT | 133 | U/l | | 124 | 144
ALAT/GPT | 127 | U/l | | 113 | 131
Alk.Phos.AMP IFCC | 342 | U/l | | 301 | 351
Total Protein | 9.74 | g/dl | | 8.88 | 11
Albumin IFCC | 5.17 | g/dl | | 4.63 | 5.97
Urea | 148.96 | mg/dl | | 133 | 153
Creatinine | 4.40 | mg/dl | | 3.69 | 6.47
Uric acid | 10.35 | mg/dl | | 8.07 | 11.79
Phosphorus | 8.09 | mg/dl | | 7.98 | 9.22
Glucose | 190.0 | mg/dl | | 186 | 208
Comment
Human
LG
BID Swati
EP - 1-2
PC - 2-4
RBC - Nil
WBC - Nil
Deep-
APTT - NCD
PT - NCD
Brid-
APTT - NCD
PT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HS200
Sample report
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(to be replaced)
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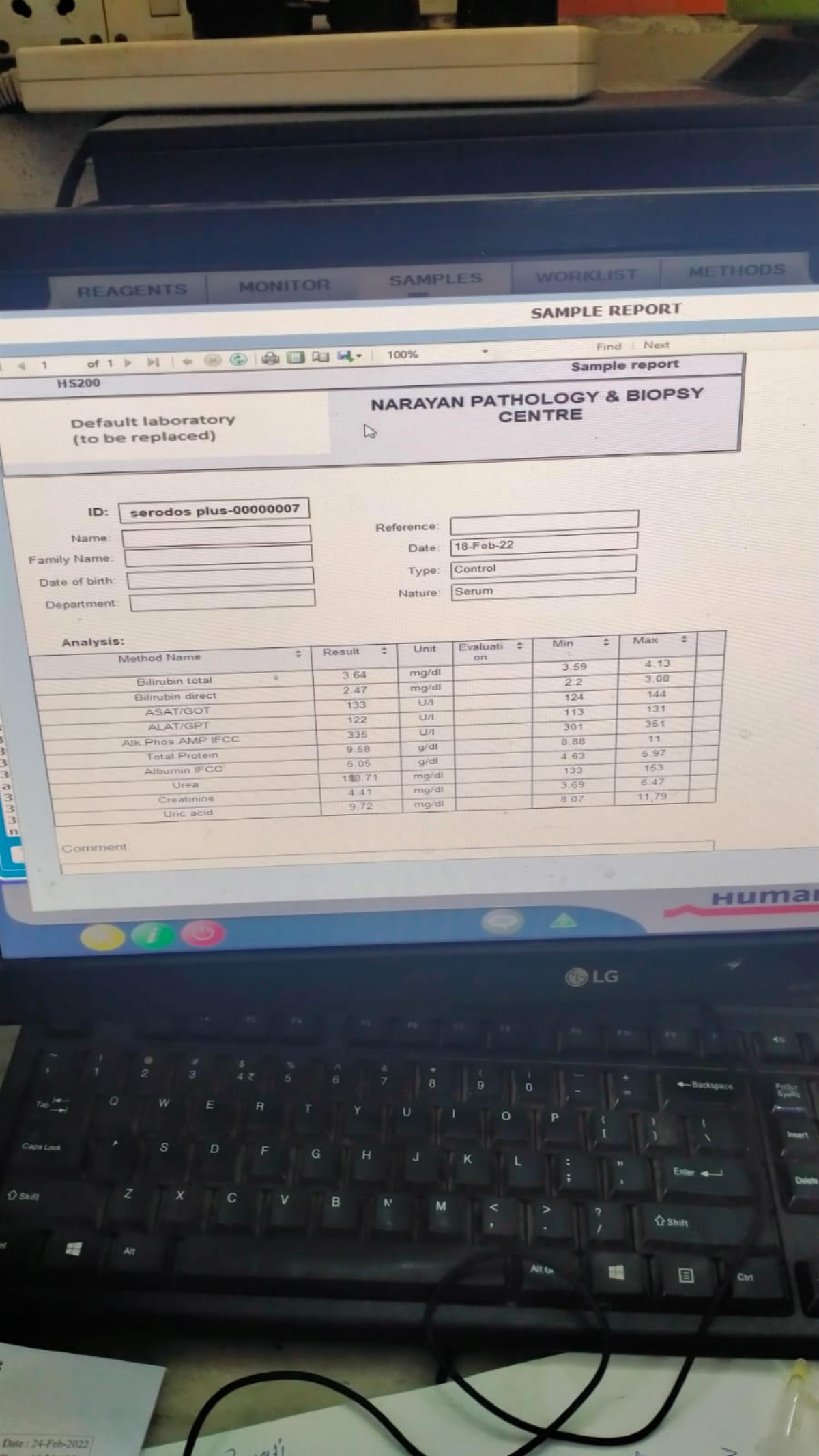
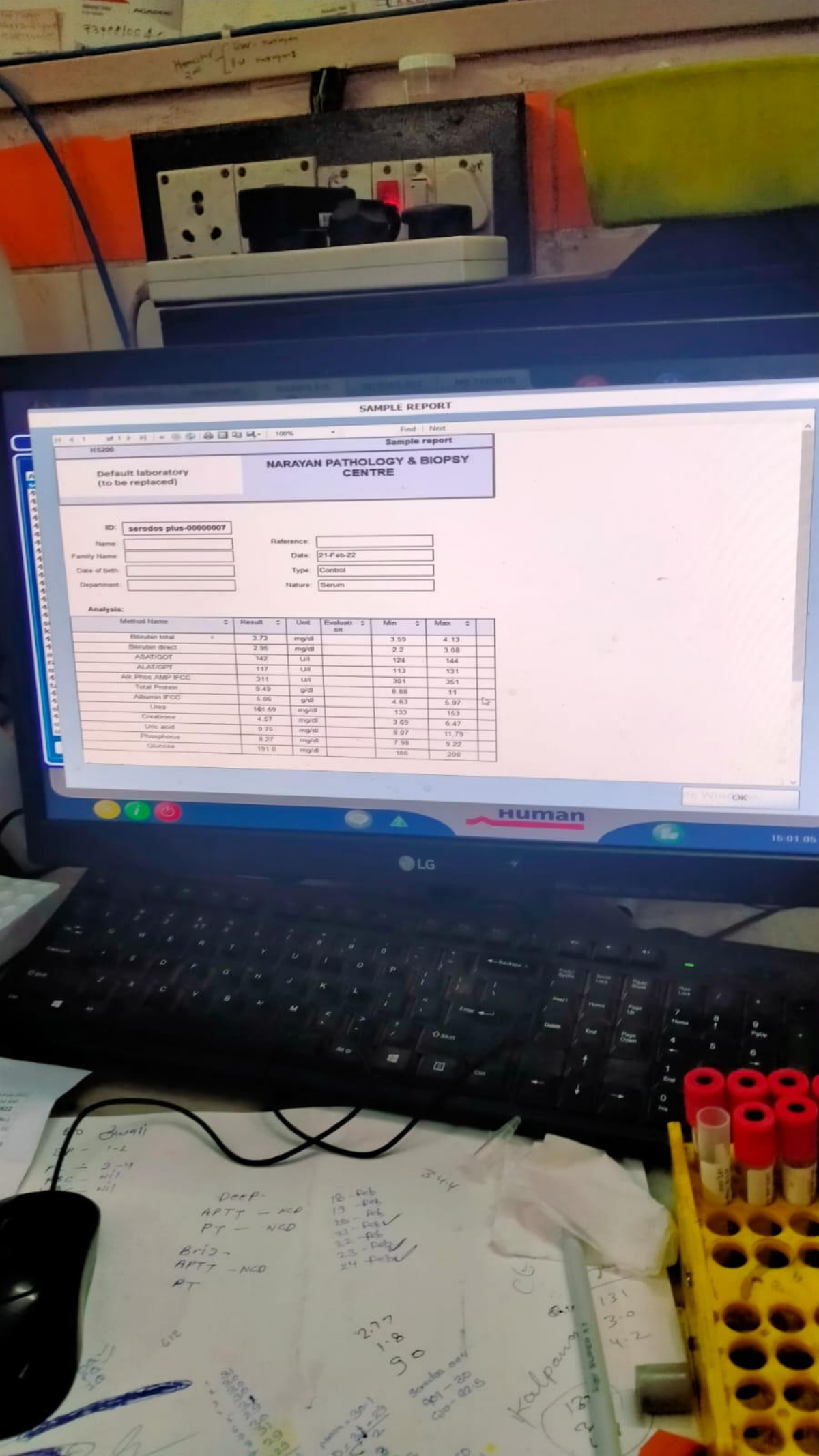
Name:
Family Name:
Date of birth:
Department:
Reference:
Date: 23-Feb-22
Type: Control
Nature: Serum
Analysis:
Method Name | Result | Unit | Evaluation | Min | Max
Bilirubin total | 3.73 | mg/dl | | 3.59 | 4.13
Bilirubin direct | 2.79 | mg/dl | | 2.2 | 3.08
ASAT/GOT | 144 | U/l | | 124 | 144
ALAT/GPT | 118 | U/l | | 113 | 131
Alk.Phos.AMP IFCC | 309 | U/l | | 301 | 351
Total Protein | 10.08 | g/dl | | 8.88 | 11
Albumin IFCC | 5.11 | g/dl | | 4.63 | 5.97
Urea | 148.83 | mg/dl | | 133 | 153
Creatinine | 4.44 | mg/dl | | 3.69 | 6.47
Uric acid | 9.88 | mg/dl | | 8.07 | 11.79
Phosphorus | 8.92 | mg/dl | | 7.98 | 9.22
Comment
Human
LG


REAGENTS
MONITOR
SAMPLES
WORKLIST
METHODS
SAMPLE REPORT
1 of 1
100%
Find | Next
Sample report
HS200
Default laboratory
(to be replaced)
NARAYAN PATHOLOGY & BIOPSY CENTRE
ID: serodos plus-00000007
Name:
Family Name:
Date of birth:
Department:
Reference:
Date: 18-Feb-22
Type: Control
Nature: Serum
Analysis:
Method Name | Result | Unit | Evaluation | Min | Max
Bilirubin total | 3.64 | mg/dl | | 3.59 | 4.13
Bilirubin direct | 2.47 | mg/dl | | 2.2 | 3.08
ASAT/GOT | 133 | U/l | | 124 | 144
ALAT/GPT | 122 | U/l | | 113 | 131
Alk.Phos AMP IFCC | 335 | U/l | | 301 | 351
Total Protein | 9.58 | g/dl | | 8.88 | 11
Albumin IFCC | 5.05 | g/dl | | 4.63 | 5.97
Urea | 140.71 | mg/dl | | 133 | 153
Creatinine | 4.41 | mg/dl | | 3.69 | 6.47
Uric acid | 9.72 | mg/dl | | 8.07 | 11.79
Comment:
Date : 24-Feb-2022
LG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Sample report
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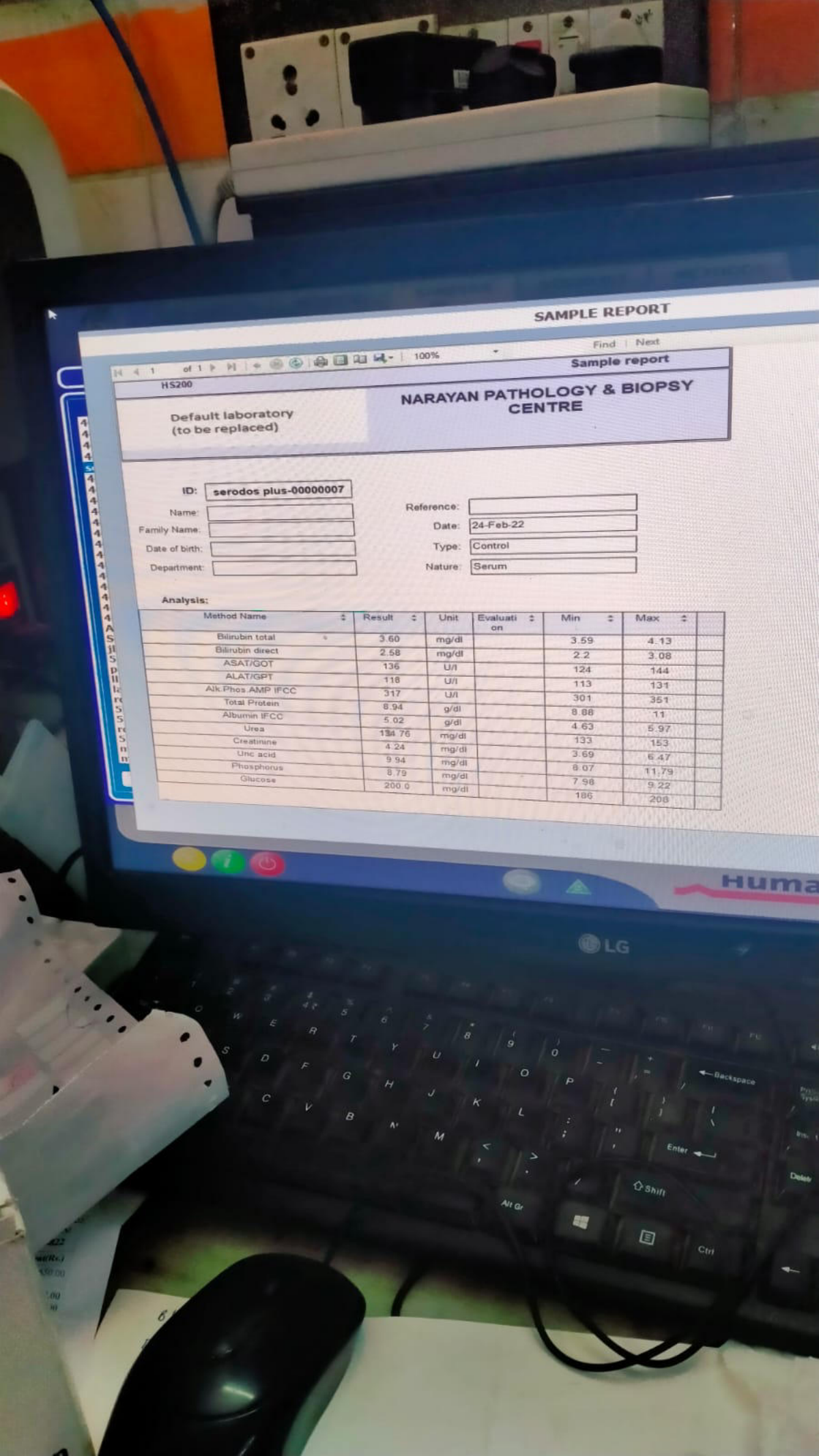
Default laboratory
(to be replaced)
NARAYAN PATHOLOGY & BIOPSY CENTRE
ID: serodos plus-00000007
Name:
Family Name:
Date of birth:
Department:
Reference:
Date: 21-Feb-22
Type: Control
Nature: Serum
Analysis:
Method Name | Result | Unit | Evaluation | Min | Max
Bilirubin total | 3.73 | mg/dl | | 3.59 | 4.13
Bilirubin direct | 2.95 | mg/dl | | 2.2 | 3.08
ASAT/GOT | 142 | U/l | | 124 | 144
ALAT/GPT | 117 | U/l | | 113 | 131
Alk.Phos.AMP IFCC | 311 | U/l | | 301 | 351
Total Protein | 9.49 | g/dl | | 8.88 | 11
Albumin IFCC | 5.06 | g/dl | | 4.63 | 5.97
Urea | 161.59 | mg/dl | | 133 | 163
Creatinine | 4.57 | mg/dl | | 3.69 | 6.47
Uric acid | 9.75 | mg/dl | | 8.07 | 11.79
Phosphorus | 8.27 | mg/dl | | 7.98 | 9.22
Glucose | 191.0 | mg/dl | | 186 | 208
OK
Human
LG


SAMPLE REPORT
Find | Next
1 of 1 100%
Sample report
HS200
Default laboratory
(to be replaced)
NARAYAN PATHOLOGY & BIOPSY CENTRE
ID: serodos plus-00000007
Name:
Family Name:
Date of birth:
Department:
Reference:
Date: 24-Feb-22
Type: Control
Nature: Serum
Analysis:
Method Name | Result | Unit | Evaluation | Min | Max
Bilirubin total | 3.60 | mg/dl | | 3.59 | 4.13
Bilirubin direct | 2.58 | mg/dl | | 2.2 | 3.08
ASAT/GOT | 136 | U/l | | 124 | 144
ALAT/GPT | 118 | U/l | | 113 | 131
Alk.Phos.AMP IFCC | 317 | U/l | | 301 | 351
Total Protein | 8.94 | g/dl | | 8.86 | 11
Albumin IFCC | 5.02 | g/dl | | 4.63 | 5.97
Urea | 134.76 | mg/dl | | 133 | 153
Creatinine | 4.24 | mg/dl | | 3.69 | 6.47
Uric acid | 9.94 | mg/dl | | 8.07 | 11.79
Phosphorus | 8.79 | mg/dl | | 7.98 | 9.22
Glucose | 200.0 | mg/dl | | 186 | 208
LG


REAGENTS
MONITOR
SAMPLES
WORKLIST
METHODS
Save
Load
Clear
Worksheets
Stack sheets
001
calibration 19-02-2022
QC 19-02-2022
sample
Remove test
Execute test
Inspect test
Recalculate test
Test
Test n°
Sample ID
Type
Dil.
Method
Test status
OD1
OD2
Result
Date
80142 Autocal-00000017 S1 1 CreaA Completed 0.0921 0.0000 0.0910 2022-02-19 11:03
80143 Autocal-00000017 S2 1 CreaA Completed 0.0909 0.0000 0.0898 2022-02-19 11:03
80144 Autocal-00000017 S3 1 CreaA Completed 0.0931 0.0000 0.0920 2022-02-19 11:03
80145 Autocal-00000017 S1 1 Glu Completed 0.5131 0.0284 0.4745 2022-02-19 11:04
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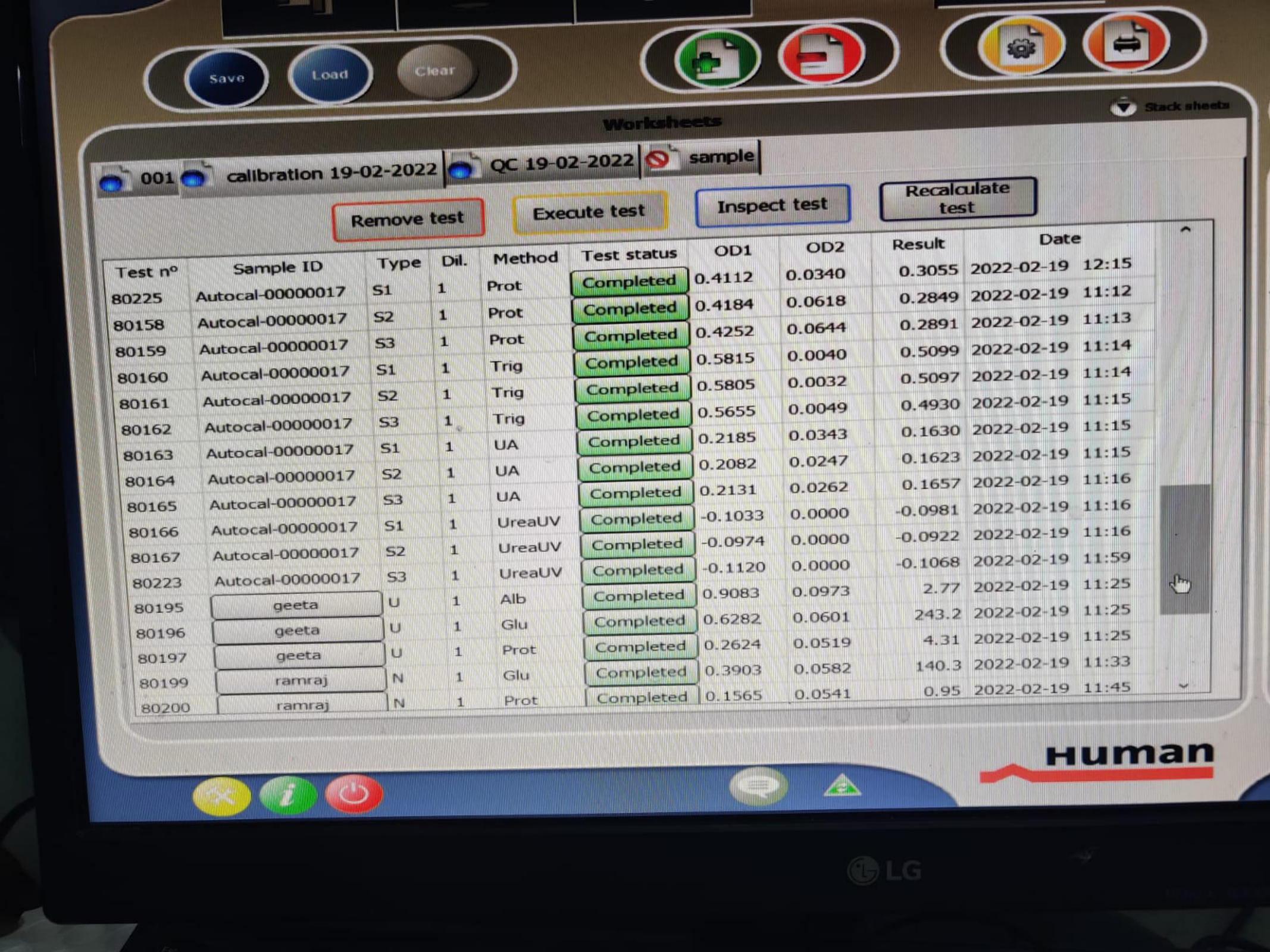
80148 Autocal-00000017 S1 1 GOT Completed -0.0521 0.0000 -0.0518 2022-02-19 11:06
80149 Autocal-00000017 S2 1 GOT Completed -0.0548 0.0000 -0.0545 2022-02-19 11:07
80150 Autocal-00000017 S3 1 GOT Completed -0.0538 0.0000 -0.0535 2022-02-19 11:08
80151 Autocal-00000017 S1 1 GPT Completed -0.0582 -0.0009 -0.0570 2022-02-19 11:08
80152 Autocal-00000017 S2 1 GPT Completed -0.0593 -0.0008 -0.0582 2022-02-19 11:09
80153 Autocal-00000017 S3 1 GPT Completed -0.0574 -0.0005 -0.0566 2022-02-19 11:10
80154 Autocal-00000017 S1 1 Phos Completed 0.6938 0.0161 0.5923 2022-02-19 11:10
80218 Autocal-00000017 S2 1 Phos Completed 0.6234 0.0147 0.5233 2022-02-19 11:42
80156 Autocal-00000017 S3 1 Phos Completed 0.6764 0.0158 0.5752 2022-02-19 11:12
80225 Autocal-00000017 S1 1 Prot Completed 0.4112 0.0340 0.3055 2022-02-19 12:15
80158 Autocal-00000017 S2 1 Prot Completed 0.4184 0.0618 0.2849 2022-02-19 11:12
serodos pl
40806 juli
40804 anja
geeta
ramraj
40822 shya
40813 kama
40793 ramra
40823
40827 sarita
Method gr
Clin1
Alb
CA
GGT
GOTM
Phos
UA
Human


Save
Load
Clear
Stack sheets
Worksheets
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calibration 19-02-2022
QC 19-02-2022
sample
Remove test
Execute test
Inspect test
Recalculate test
Test n°
Sample ID
Type
Dil.
Method
Test status
OD1
OD2
Result
Date
80225 Autocal-00000017 S1 1 Prot Completed 0.4112 0.0340 0.3055 2022-02-19 12:15
80158 Autocal-00000017 S2 1 Prot Completed 0.4184 0.0618 0.2849 2022-02-19 11:12
80159 Autocal-00000017 S3 1 Prot Completed 0.4252 0.0644 0.2891 2022-02-19 11:13
80160 Autocal-00000017 S1 1 Trig Completed 0.5815 0.0040 0.5099 2022-02-19 11:14
80161 Autocal-00000017 S2 1 Trig Completed 0.5805 0.0032 0.5097 2022-02-19 11:14
80162 Autocal-00000017 S3 1 Trig Completed 0.5655 0.0049 0.4930 2022-02-19 11:15
80163 Autocal-00000017 S1 1 UA Completed 0.2185 0.0343 0.1630 2022-02-19 11:15
80164 Autocal-00000017 S2 1 UA Completed 0.2082 0.0247 0.1623 2022-02-19 11:15
80165 Autocal-00000017 S3 1 UA Completed 0.2131 0.0262 0.1657 2022-02-19 11:16
80166 Autocal-00000017 S1 1 UreaUV Completed -0.1033 0.0000 -0.0981 2022-02-19 11:16
80167 Autocal-00000017 S2 1 UreaUV Completed -0.0974 0.0000 -0.0922 2022-02-19 11:16
80223 Autocal-00000017 S3 1 UreaUV Completed -0.1120 0.0000 -0.1068 2022-02-19 11:59
80195 geeta U 1 Alb Completed 0.9083 0.0973 2.77 2022-02-19 11:25
80196 geeta U 1 Glu Completed 0.6282 0.0601 243.2 2022-02-19 11:25
80197 geeta U 1 Prot Completed 0.2624 0.0519 4.31 2022-02-19 11:25
80199 ramraj N 1 Glu Completed 0.3903 0.0582 140.3 2022-02-19 11:33
80200 ramraj N 1 Prot Completed 0.1565 0.0541 0.95 2022-02-19 11:45
Human
LG

Save Load Clear

Worksheets

Stack sheets

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Remove test | Execute test | Inspect test | Recalculate test

Test n°	Sample ID	Type	Dil.	Method	Test status	OD1	OD2	Result	Date
82010	42605 yashmeen	N	1	APAMP	Completed	0.0236	0.0000	90	2022-03-01 07:12
82011	42605 yashmeen	N	1	Prot	Completed	0.3642	0.0359	8.08	2022-03-01 07:13
82012	42605 yashmeen	N	1	Alb	Completed	1.1239	0.1182	3.82	2022-03-01 07:13
82013	42605 yashmeen	N	1	CreaA	Completed	0.0212	0.0000	0.89	2022-03-01 07:13
82014	serodos plus-00000007	QC2	1	Bilta	Completed	0.0760	0.0049	3.68	2022-03-01 07:19
82015	serodos plus-00000007	QC2	1	Bilda	Completed	0.3031	0.2271	2.25	2022-03-01 07:20
82016	serodos plus-00000007	QC2	1	GOT	Completed	-0.0514	0.0000	132	2022-03-01 07:20
82017	serodos plus-00000007	QC2	1	GPT	Completed	-0.0585	-0.0014	119	2022-03-01 07:20
82018	serodos plus-00000007	QC2	1	APAMP	Completed	0.0618	0.0000	335	2022-03-01 07:21
82019	serodos plus-00000007	QC2	1	Prot	Completed	0.4289	0.0606	9.32	2022-03-01 07:21
82020	serodos plus-00000007	QC2	1	Alb	Completed	1.4938	0.1597	5.49	2022-03-01 07:21
82021	serodos plus-00000007	QC2	1	UreaUV	Completed	-0.1062	0.0000	145.26	2022-03-01 07:22
82022	serodos plus-00000007	QC2	1	CreaA	Completed	0.0959	0.0000	5.10	2022-03-01 07:22
82023	serodos plus-00000007	QC2	1	UA	Completed	0.2201	0.0192	11.08	2022-03-01 07:24
82024	serodos plus-00000007	QC2	1	Phos	Completed	0.6460	0.0108	8.13	2022-03-01 07:24
82025	serodos plus-00000007	QC2	1	Glu	Completed	0.4932	0.0272	200.4	2022-03-01 07:25
82026	jaibun	N	1	Alb	Completed	0.7404	0.0836	2.04	2022-03-01 07:25

Nature: Serum

Container: Cup

Patient

Scheduled test 0

Programmed test 36

n/a

Remove test | Execute test | Inspect test | Recalculate test

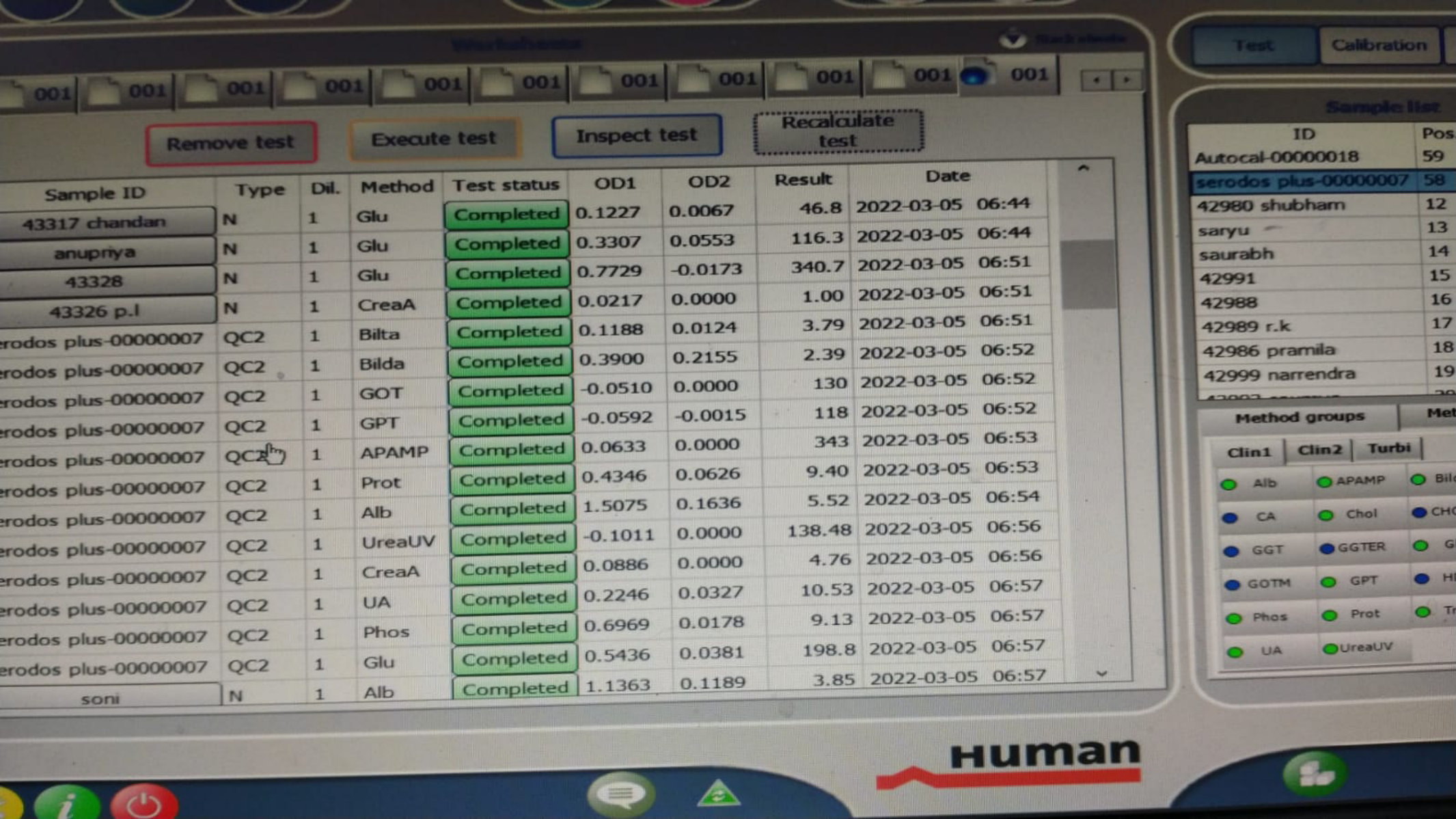
N°	Meth. code	Dilution	OD1	OD2	Result	Test status	Date
82214	Bilta	1	0.0741	0.0043	3.61	Completed	2022-03-02 07:23
82215	Bilda	1	0.2708	0.1879	2.22	Completed	2022-03-02 06:58
82216	GOT	1	-0.0514	0.0000	130	Completed	2022-03-02 06:59
82217	GPT	1	-0.0605	-0.0014	121	Completed	2022-03-02 06:59
82218	APAMP	1	0.0582	0.0000	315	Completed	2022-03-02 06:59
82219	Prot	1	0.4139	0.0488	9.19	Completed	2022-03-02 07:00
82220	Alb	1	1.4822	0.1546	5.48	Completed	2022-03-02 07:00
82221	UreaUV	1	-0.1149	0.0000	142.82	Completed	2022-03-02 07:01
82222	CreaA	1	0.1031	0.0000	5.48	Completed	2022-03-02 07:01
82223	UA	1	0.2264	0.0208	11.45	Completed	2022-03-02 07:02
82276	Trig	1	0.2855	0.0032	244	Completed	2022-03-02 11:07

Human

Test n°	Sample ID	Type	Dil.	Method	Test status	OD1	OD2	Result	Date
82437	42934	N	1	Glu	Completed	0.3108	0.0142	127.3	2022-03-03 06:56
82439	serodos plus-00000007	QC2	1	Bilta	Completed	0.0888	0.0152	3.67	2022-03-03 07:08
82440	serodos plus-00000007	QC2	1	Bilda	Completed	0.3103	0.2009	2.40	2022-03-03 07:08
82441	serodos plus-00000007	QC2	1	GOT	Completed	-0.0487	0.0000	126	2022-03-03 07:09
82442	serodos plus-00000007	QC2	1	GPT	Completed	-0.0558	-0.0007	113	2022-03-03 07:09
82443	serodos plus-00000007	QC2	1	APAMP	Completed	0.0494	0.0000	310	2022-03-03 07:09
82444	serodos plus-00000007	QC2	1	Prot	Completed	0.4191	0.0450	9.58	2022-03-03 07:10
82445	serodos plus-00000007	QC2	1	Alb	Completed	1.4775	0.1595	5.40	2022-03-03 07:10
82446	serodos plus-00000007	QC2	1	UreaUV	Completed	-0.1032	0.0000	140.79	2022-03-03 07:11
82447	serodos plus-00000007	QC2	1	CreaA	Completed	0.0992	0.0000	5.32	2022-03-03 07:13
82448	serodos plus-00000007	QC2	1	UA	Completed	0.2191	0.0215	10.85	2022-03-03 07:13
82449	serodos plus-00000007	QC2	1	Phos	Completed	0.6516	0.0122	8.38	2022-03-03 07:13
82450	serodos plus-00000007	QC2	1	Glu	Completed	0.5522	0.0375	202.5	2022-03-03 07:13
82451	Diluent	BLANK	1	Trig	Completed	0.0606	0.0040	0.0566	2022-03-03 07:08
82452	serodos plus-00000007	QC2	1	Trig	Completed	0.2768	0.0085	221	2022-03-03 07:14
82453	Diluent	BLANK	1	GOT	Completed	-0.0003	1.4951	-0.0003	2022-03-03 07:22
82455	42956 radha	N	1	CreaA	Completed	0.0167	0.0000	0.67	2022-03-03 08:0

Remove test | Execute test | Inspect test | Recalculate test

Sample ID	Type	Dil.	Method	Test status	OD1	OD2	Result	Date
Diluent	BLANK	1	Glu	Completed	0.0057	-0.0007	0.0064	2022-03-04 05:35
serodos plus-00000007	QC2	1	Bilta	Completed	0.0805	0.0095	3.67	2022-03-04 05:36
serodos plus-00000007	QC2	1	Bilda	Completed	0.3081	0.1970	2.44	2022-03-04 05:37
serodos plus-00000007	QC2	1	GOT	Completed	-0.0496	0.0000	129	2022-03-04 05:38
serodos plus-00000007	QC2	1	GPT	Completed	-0.0562	-0.0010	113	2022-03-04 05:38
serodos plus-00000007	QC2	1	APAMP	Completed	0.0647	0.0000	351	2022-03-04 05:39
serodos plus-00000007	QC2	1	Prot	Completed	0.4303	0.0654	8.95	2022-03-04 05:39
serodos plus-00000007	QC2	1	Alb	Completed	1.4396	0.1554	5.26	2022-03-04 05:39
serodos plus-00000007	QC2	1	UreaUV	Completed	-0.1037	0.0000	142.09	2022-03-04 05:40
serodos plus-00000007	QC2	1	CreaA	Completed	0.0881	0.0000	4.69	2022-03-04 05:41
serodos plus-00000007	QC2	1	UA	Completed	0.2156	0.0254	10.18	2022-03-04 05:42
serodos plus-00000007	QC2	1	Phos	Completed	0.6806	0.0139	8.85	2022-03-04 05:42
serodos plus-00000007	QC2	1	Glu	Completed	0.5225	0.0649	196.7	2022-03-04 05:43
43119 saroj	N	1	Bilta	Completed	0.0167	0.0072	0.39	2022-03-04 05:43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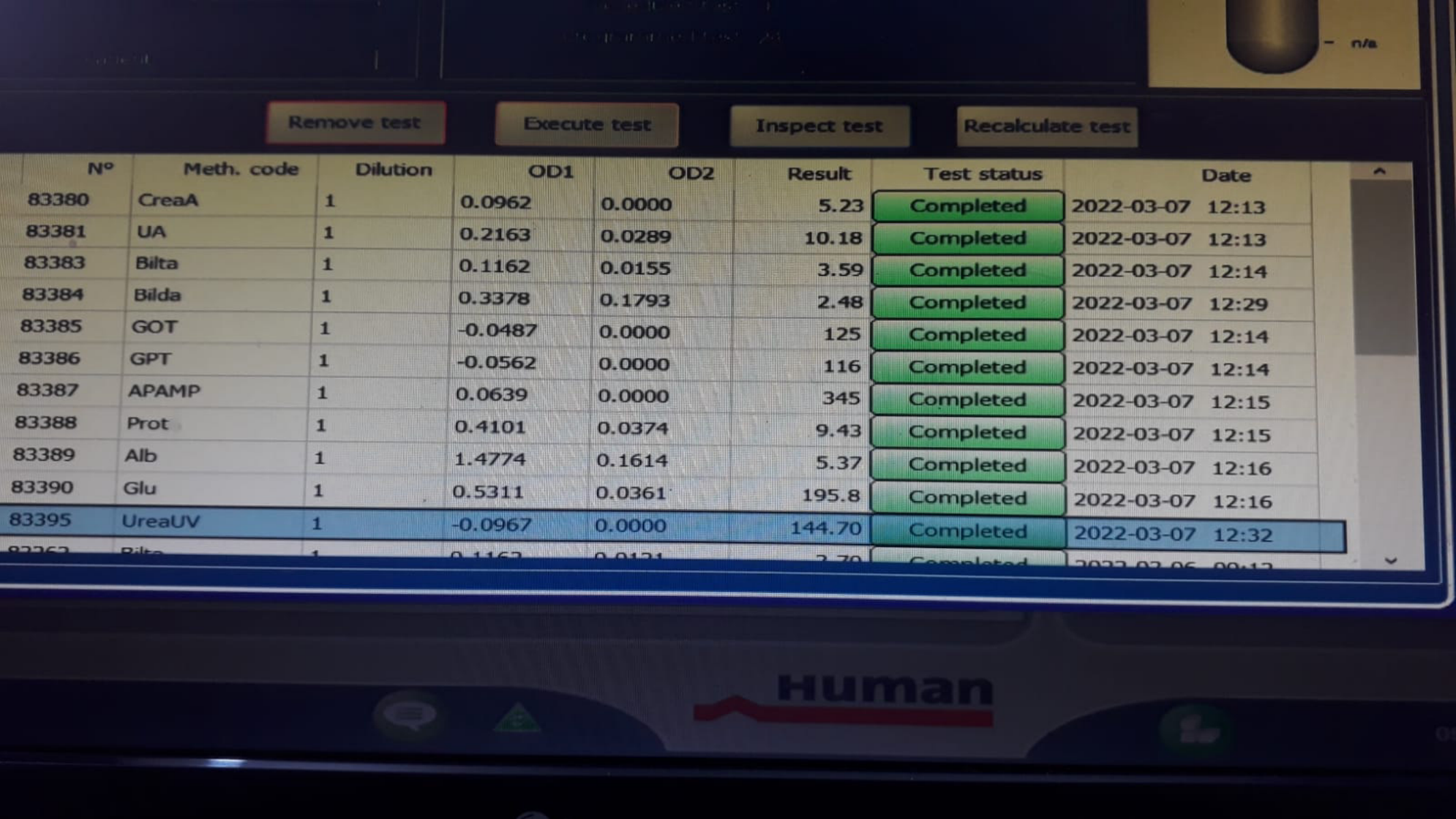
Remove test
Execute test
Inspect test
Recalculate test
Sample ID
Type
Dil.
Method
Test status
OD1
OD2
Result
Date
43317 chandan N 1 Glu Completed 0.1227 0.0067 46.8 2022-03-05 06:44
anupriya N 1 Glu Completed 0.3307 0.0553 116.3 2022-03-05 06:44
43328 N 1 Glu Completed 0.7729 -0.0173 340.7 2022-03-05 06:51
43326 p.l N 1 CreaA Completed 0.0217 0.0000 1.00 2022-03-05 06:51
erodos plus-00000007 QC2 1 Bilta Completed 0.1188 0.0124 3.79 2022-03-05 06:51
erodos plus-00000007 QC2 1 Bilda Completed 0.3900 0.2155 2.39 2022-03-05 06:52
erodos plus-00000007 QC2 1 GOT Completed -0.0510 0.0000 130 2022-03-05 06:52
erodos plus-00000007 QC2 1 GPT Completed -0.0592 -0.0015 118 2022-03-05 06:52
erodos plus-00000007 QC2 1 APAMP Completed 0.0633 0.0000 343 2022-03-05 06:53
erodos plus-00000007 QC2 1 Prot Completed 0.4346 0.0626 9.40 2022-03-05 06:53
erodos plus-00000007 QC2 1 Alb Completed 1.5075 0.1636 5.52 2022-03-05 06:54
erodos plus-00000007 QC2 1 UreaUV Completed -0.1011 0.0000 138.48 2022-03-05 06:56
erodos plus-00000007 QC2 1 CreaA Completed 0.0886 0.0000 4.76 2022-03-05 06:56
erodos plus-00000007 QC2 1 UA Completed 0.2246 0.0327 10.53 2022-03-05 06:57
erodos plus-00000007 QC2 1 Phos Completed 0.6969 0.0178 9.13 2022-03-05 06:57
erodos plus-00000007 QC2 1 Glu Completed 0.5436 0.0381 198.8 2022-03-05 06:57
soni N 1 Alb Completed 1.1363 0.1189 3.85 2022-03-05 06:57
Test
Calibration
Sample list
ID
Pos
Autocal-00000018 59
serodos plus-00000007 58
42980 shubham 12
saryu 13
saurabh 14
42991 15
42988 16
42989 r.k 17
42986 pramila 18
42999 narrendra 19
Method groups
Clin1
Clin2
Turbi
Alb
APAMP
CA
Chol
GGT
GGTER
GOTM
GPT
Phos
Prot
UA
UreaUV
Human

Remove test | Execute test | Inspect test | Recalculate test

N°	Meth. code	Dilution	OD1	OD2	Result	Test status	Date
3262	Bilta	1	0.1162	0.0121	3.70	Completed	2022-03-06 09:12
3263	Bilda	1	0.3483	0.1846	2.24	Completed	2022-03-06 09:12
3264	GOT	1	-0.0506	0.0000	131	Completed	2022-03-06 09:13
3266	APAMP	1	0.0650	0.0000	351	Completed	2022-03-06 09:14
3267	Prot	1	0.4241	0.0602	9.15	Completed	2022-03-06 09:14
3268	Alb	1	1.4674	0.1581	5.33	Completed	2022-03-06 09:15
3269	UreaUV	1	-0.1106	0.0000	137.23	Completed	2022-03-06 09:15
3270	CreaA	1	0.0962	0.0000	5.22	Completed	2022-03-06 09:16
3271	UA	1	0.2126	0.0269	10.28	Completed	2022-03-06 09:17
3272	Phos	1	0.7010	0.0207	9.06	Completed	2022-03-06 09:17
3273	Glu	1	0.5334	0.0347	196.1	Completed	2022-03-06 09:11
3295	GPT	1	-0.0571	-0.0001	119	Completed	2022-03-06 10:27



N°	Meth. code	Dilution	OD1	OD2	Result	Test status	Date
83380	CreaA	1	0.0962	0.0000	5.23	Completed	2022-03-07 12:13
83381	UA	1	0.2163	0.0289	10.18	Completed	2022-03-07 12:13
83383	Bilta	1	0.1162	0.0155	3.59	Completed	2022-03-07 12:14
83384	Bilda	1	0.3378	0.1793	2.48	Completed	2022-03-07 12:29
83385	GOT	1	-0.0487	0.0000	125	Completed	2022-03-07 12:14
83386	GPT	1	-0.0562	0.0000	116	Completed	2022-03-07 12:14
83387	APAMP	1	0.0639	0.0000	345	Completed	2022-03-07 12:15
83388	Prot	1	0.4101	0.0374	9.43	Completed	2022-03-07 12:15
83389	Alb	1	1.4774	0.1614	5.37	Completed	2022-03-07 12:16
83390	Glu	1	0.5311	0.0361	195.8	Completed	2022-03-07 12:16
83395	UreaUV	1	-0.0967	0.0000	144.70	Completed	2022-03-07 12:32

	Diluent	BLANK	1	Glu	Completed	0.0074	0.0043	0.0031	2022-03-08	06:16
8	serodos plus-00000007	QC2	1	Bilta	Completed	0.1224	0.0240	3.75	2022-03-08	06:18
9	serodos plus-00000007	QC2	1	Bilda	Completed	0.3992	0.2244	2.72	2022-03-08	06:19
0	serodos plus-00000007	QC2	1	GOT	Completed	-0.0511	0.0000	130	2022-03-08	06:19
1	serodos plus-00000007	QC2	1	GPT	Completed	-0.0568	-0.0007	115	2022-03-08	06:20
2	serodos plus-00000007	QC2	1	APAMP	Completed	0.0636	0.0000	339	2022-03-08	06:20
23	serodos plus-00000007	QC2	1	Prot	Completed	0.4275	0.0642	9.18	2022-03-08	06:21
24	serodos plus-00000007	QC2	1	Alb	Completed	1.4635	0.1619	5.33	2022-03-08	06:21
25	serodos plus-00000007	QC2	1	UreaUV	Completed	-0.1112	0.0000	138.66	2022-03-08	06:23
26	serodos plus-00000007	QC2	1	CreaA	Completed	0.0914	0.0000	4.91	2022-03-08	06:24
27	serodos plus-00000007	QC2	1	UA	Completed	0.2218	0.0330	10.31	2022-03-08	06:24
28	serodos plus-00000007	QC2	1	Phos	Completed	0.7314	0.0204	9.17	2022-03-08	06:25
29	serodos plus-00000007	QC2	1	Glu	Completed	0.5450	0.0439	199.8	2022-03-08	06:25
530	Diluent	BLANK	1	Chol	Completed	0.0475	0.0082	0.0393	2022-03-08	06:17

Hum

LG

Worksheets

Stack sheets

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Remove test | Execute test | Inspect test | Recalculate test

Test n°	Sample ID	Type	Dil.	Method	Test status	OD1	OD2	Result	Date
83635	serodos plus-00000007	QC2	1	Bilta	Completed	0.1138	0.0114	3.75	2022-03-09 12:58
83636	serodos plus-00000007	QC2	1	Bilda	Completed	0.3507	0.1887	2.52	2022-03-09 12:58
83637	serodos plus-00000007	QC2	1	GOT	Completed	-0.0483	0.0000	126	2022-03-09 12:59
83638	serodos plus-00000007	QC2	1	GPT	Completed	-0.0562	-0.0001	115	2022-03-09 13:00
83639	serodos plus-00000007	QC2	1	APAMP	Completed	0.0598	0.0000	323	2022-03-09 13:00
83640	serodos plus-00000007	QC2	1	Prot	Completed	0.4274	0.0523	9.51	2022-03-09 13:01
83641	serodos plus-00000007	QC2	1	Alb	Completed	1.4669	0.1601	5.30	2022-03-09 13:01
83642	serodos plus-00000007	QC2	1	UreaUV	Completed	-0.0957	0000	143.90	2022-03-09 13:02
83643	serodos plus-00000007	QC2	1	CreaA	Completed	0.0858	0.0000	4.68	2022-03-09 13:03
83644	serodos plus-00000007	QC2	1	UA	Completed	0.2100	0.0269	9.95	2022-03-09 13:03
83646	serodos plus-00000007	QC2	1	Glu	Completed	0.4555	0.0249	205.3	2022-03-09 13:04
83648	serodos plus-00000007	QC2	1	Chol	Completed	0.3182	-0.0859	291	2022-03-09 13:04
83650	serodos plus-00000007	QC2	1	Trig	Completed	0.1707	-0.0834	230	2022-03-09 13:04
83651	43692 arjun	N	1	Glu	Completed	0.2604	0.0066	97.8	2022-03-09 13:05
83652	43692 arjun	N	1	CreaA	Completed	0.0515	0.0000	2.75	2022-03-09 13:05
83653	43682 prem	N	1	Glu	Completed	0.5797	0.0200	220.5	2022-03-09 13:06

Human

667	Diluent	BLANK	1	Glu	Completed	0.0234	0.0183	0.0051	2022-03-10	13:48
668	serodos plus-00000007	QC2	1	Bilta	Completed	0.1171	0.0171	3.90	2022-03-10	13:49
669	serodos plus-00000007	QC2	1	Bilda	Completed	0.3691	0.2056	2.54	2022-03-10	13:49
3670	serodos plus-00000007	QC2	1	GOT	Completed	-0.0510	0.0000	133	2022-03-10	13:49
3671	serodos plus-00000007	QC2	1	GPT	Completed	-0.0582	-0.0004	120	2022-03-10	13:50
3672	serodos plus-00000007	QC2	1	APAMP	Completed	0.0660	0.0000	324	2022-03-10	13:50
3673	serodos plus-00000007	QC2	1	Prot	Completed	0.4145	0.0354	9.73	2022-03-10	13:50
3674	serodos plus-00000007	QC2	1	Alb	Completed	1.5117	0.1644	5.49	2022-03-10	13:51
83675	serodos plus-00000007	QC2	1	UreaUV	Completed	-0.1098	0.0000	135.41	2022-03-10	13:51
83676	serodos plus-00000007	QC2	1	CreaA	Completed	0.0995	0.0000	5.42	2022-03-10	13:51
83677	serodos plus-00000007	QC2	1	UA	Completed	0.2202	0.0297	10.41	2022-03-10	13:53
83678	serodos plus-00000007	QC2	1	Phos	Completed	0.6793	0.0166	8.70	2022-03-10	13:54
83679	serodos plus-00000007	QC2	1	Glu	Completed	0.5455	0.0361	202.3	2022-03-10	13:54
83681	43700	N	1	CreaA	Completed	0.0287	0.0000	1.44	2022-03-10	14:01

Human

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Worksheets

Stack sheets

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Remove test | Execute test | Inspect test | Recalculate test

est n°	Sample ID	Type	Dil.	Method	Test status	OD1	OD2	Result	Date
3727	Diluent	BLANK	1	Phos	Completed	0.1001	0.0004	0.0997	2022-03-11 15:59
3728	Diluent	BLANK	1	Glu	Completed	0.0056	-0.0016	0.0072	2022-03-11 15:59
3729	serodos plus-00000007	QC2	1	Bilta	Completed	0.1165	0.0180	3.98	2022-03-11 16:00
3730	serodos plus-00000007	QC2	1	Bilda	Completed	0.3820	0.2204	2.53	2022-03-11 16:00
3731	serodos plus-00000007	QC2	1	GOT	Completed	-0.0515	0.0000	135	2022-03-11 16:01
83732	serodos plus-00000007	QC2	1	GPT	Completed	-0.0585	0.0000	119	2022-03-11 16:01
83733	serodos plus-00000007	QC2	1	APAMP	Completed	0.0644	0.0000	315	2022-03-11 16:31
83734	serodos plus-00000007	QC2	1	Prot	Completed	0.4189	0.0350	9.80	2022-03-11 16:02
83735	serodos plus-00000007	QC2	1	Alb	Completed	1.5485	0.1673	5.69	2022-03-11 16:03
83736	serodos plus-00000007	QC2	1	UreaUV	Completed	-0.1155	0.0000	144.12	2022-03-11 16:31
83737	serodos plus-00000007	QC2	1	CreaA	Completed	0.0929	0.0000	5.03	2022-03-11 16:31
83738	serodos plus-00000007	QC2	1	UA	Completed	0.2192	0.0276	10.51	2022-03-11 16:32
83739	serodos plus-00000007	QC2	1	Phos	Completed	0.6847	0.0166	8.76	2022-03-11 16:32
83740	serodos plus-00000007	QC2	1	Glu	Completed	0.5411	0.0327	201.0	2022-03-11 16:32
83741	muzibul	N	1	Alb	Not scheduled			n/a	
83742	muzibul	N	1	Glu	Not scheduled			n/a	
83743	muzibul	N	1	Prot	Not scheduled			n/a	

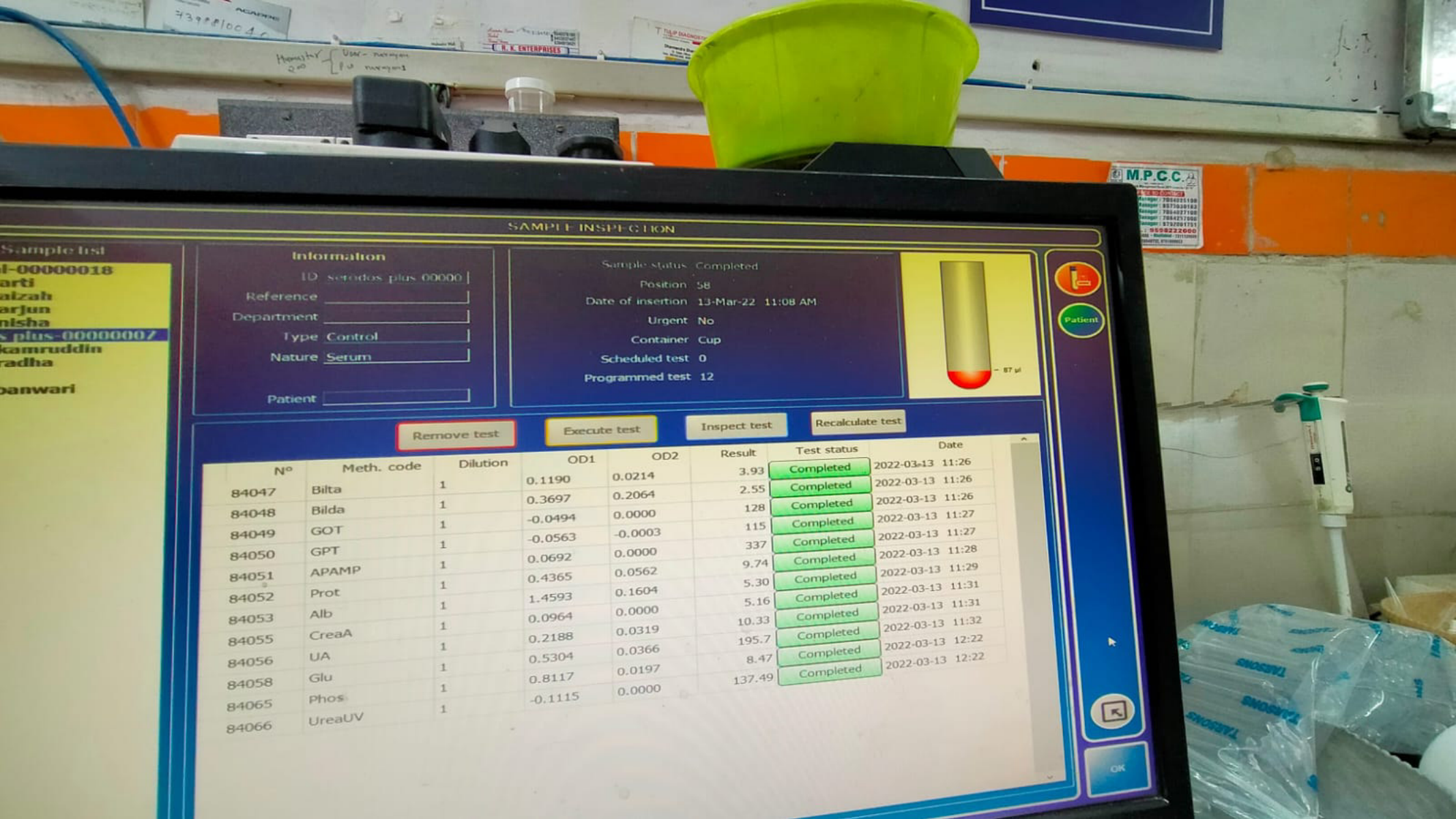
Human

Remove test | Execute test | Inspect test | Recalculate test

N°	Meth. code	Dilution	OD1	OD2	Result	Test status	Date
83851	Bilta	1	0.1182	0.0210	3.90	Completed	2022-03-12 11:18
83852	Bilda	1	0.3683	0.2096	2.50	Completed	2022-03-12 11:18
83853	GOT	1	-0.0493	0.0000	129	Completed	2022-03-12 11:19
83854	GPT	1	-0.0538	-0.0010	110	Completed	2022-03-12 11:20
83855	APAMP	1	0.0608	0.0000	297	Completed	2022-03-12 11:20
83856	Prot	1	0.4104	0.0531	8.92	Completed	2022-03-12 11:20
83857	Alb	1	1.4526	0.1584	5.27	Completed	2022-03-12 11:21
83858	UreaUV	1	-0.1130	0.0000	135.80	Completed	2022-03-12 11:22
83859	CreaA	1	0.0942	0.0000	5.11	Completed	2022-03-12 11:22
83861	UA	1	0.2158	0.0283	10.29	Completed	2022-03-12 11:23
83863	Phos	1	0.3097	0.0267	0.64	Completed	2022-03-12 11:24
83865	Glu	1	0.4921	0.0300	182.2	Completed	2022-03-12 11:24

OK

LG



N°	Meth. code	Dilution	OD1	OD2	Result	Test status	Date
84047	Bilta	1	0.1190	0.0214	3.93	Completed	2022-03-13 11:26
84048	Bilda	1	0.3697	0.2064	2.55	Completed	2022-03-13 11:26
84049	GOT	1	-0.0494	0.0000	128	Completed	2022-03-13 11:26
84050	GPT	1	-0.0563	-0.0003	115	Completed	2022-03-13 11:27
84051	APAMP	1	0.0692	0.0000	337	Completed	2022-03-13 11:27
84052	Prot	1	0.4365	0.0562	9.74	Completed	2022-03-13 11:28
84053	Alb	1	1.4593	0.1604	5.30	Completed	2022-03-13 11:29
84055	CreaA	1	0.0964	0.0000	5.16	Completed	2022-03-13 11:31
84056	UA	1	0.2188	0.0319	10.33	Completed	2022-03-13 11:31
84058	Glu	1	0.5304	0.0366	195.7	Completed	2022-03-13 11:32
84065	Phos	1	0.8117	0.0197	8.47	Completed	2022-03-13 12:22
84066	UreaUV	1	-0.1115	0.0000	137.49	Completed	2022-03-13 12:22

Reagent name / Reagenzbezeichnung / Parametro / Paramètre Method / Methode / Método/ Méthode	applicable for / anwendbar für / aplicable por / applicable pour	SI Unit SI Einheit Unidad SI Unité SI	Mean Mittelwert Media Moyenne	Range Bereich Rango Plage de valeurs	Unit Einheit Unidad Unité	Mean Mittelwert Media Moyenne	Range Bereich Rango Plage de valeurs
GOT (ASAT) IFCC mod. liquiUV Enzymatic, 37°C, IFCC without P5P	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	2.23	2.10 - 2.38	U/l	134	126 - 143
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	2.05	1.92 - 2.18	U/l	123	115 - 131
	HumaLyzer photometer	µkat/l	2.08	1.82 - 2.33	U/l	125	109 - 140
GPT (ALAT) IFCC mod. liquiUV Enzymatic, 37°C, IFCC without P5P	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	2.05	1.88 - 2.20	U/l	123	113 - 132
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	1.98	1.77 - 2.20	U/l	119	106 - 132
	HumaLyzer photometer	µkat/l	1.92	1.60 - 2.25	U/l	115	96.1 - 135
HDL CHOLESTEROL liquicolor Homogenous enzymatic assay	AUTOCAL LOT 0017	mmol/l	3.15	2.69 - 3.63	mg/dl	122	104 - 140
	AUTOCAL LOT 0018	mmol/l	2.61	2.24 - 3.00	mg/dl	101	86.8 - 116
	for Kit calibrator only	mmol/l	2.77	2.43 - 3.10	mg/dl	107	94.1 - 120
HDL CHOLESTEROL Precipitation method	HumaLyzer photometer	mmol/l	3.31	2.92 - 3.72	mg/dl	128	113 - 144
IRON liquicolor CAB	HumaStar analyzer AUTOCAL LOT 0017	µmol/l	52.1	37.8 - 66.2	µg/dl	291	211 - 370
	HumaStar analyzer AUTOCAL LOT 0018	µmol/l	50.8	46.2 - 55.7	µg/dl	284	258 - 311
	HumaLyzer photometer	µmol/l	39.9	27.2 - 52.6	µg/dl	223	152 - 294
IRON TPTZ liquicolor TPTZ	HumaStar analyzer AUTOCAL LOT 0017	µmol/l	54.4	49.9 - 59.1	µg/dl	304	279 - 330
	HumaStar analyzer AUTOCAL LOT 0018	µmol/l	53.2	49.9 - 56.6	µg/dl	297	279 - 316
	HumaLyzer photometer	µmol/l	51.7	45.3 - 58.2	µg/dl	289	253 - 325
IMMUNOGLOBULINS direct IgA Immunoturbidimetry	HumaStar analyzer, HumaLyzer photometer	g/l	2.58	2.28 - 2.88	mg/dl	258	228 - 288
IMMUNOGLOBULINS direct IgG Immunoturbidimetry	HumaStar analyzer, HumaLyzer photometer	g/l	12.3	9.83 - 14.8	mg/dl	1234	983 - 1484
IMMUNOGLOBULINS direct IgM Immunoturbidimetry	HumaStar 600, HumaLyzer 4000	g/l	0.86	0.78 - 0.93	mg/dl	85.6	78.2 - 93.0
	HumaStar 100/200/300SR, HumaLyzer 2000/3000	g/l	1.16	0.90 - 1.43	mg/dl	116	89.7 - 143
LDH SCE mod. liquiUV Substrate Pyruvate, 37°C, SCE	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	11.6	10.4 - 12.8	U/l	696	625 - 767
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	11.3	10.3 - 12.2	U/l	676	619 - 733
	HumaLyzer photometer	µkat/l	11.3	9.42 - 13.2	U/l	677	565 - 790
LDL CHOLESTEROL liquicolor Homogenous enzymatic assay	AUTOCAL LOT 0017	mmol/l	4.22	2.82 - 5.64	mg/dl	163	109 - 218
	AUTOCAL LOT 0018	mmol/l	4.58	3.05 - 6.10	mg/dl	177	118 - 236
	Kit calibrator	mmol/l	4.78	3.62 - 5.95	mg/dl	185	140 - 230
LIPASE liquicolor Substrate Methylresorufin, 37°C	LOT 21001 and higher: AUTOCAL LOT 0017	µkat/l	1.39	1.25 - 1.53	U/l	83.5	75.0 - 92.0
	LOT 21001 and higher: AUTOCAL LOT 0018	µkat/l	1.21	1.05 - 1.37	U/l	72.5	62.9 - 82.1
	up to LOT 20010: AUTOCAL LOT 0017 and 0018	µkat/l	1.09	0.81 - 1.38	U/l	65.5	48.4 - 82.6
MAGNESIUM liquicolor Xylidyl blue	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	1.30	1.16 - 1.43	mg/dl	3.15	2.83 - 3.47
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	1.24	1.07 - 1.41	mg/dl	3.01	2.59 - 3.43
	HumaLyzer photometer	mmol/l	1.34	1.21 - 1.47	mg/dl	3.25	2.93 - 3.57
PANCREAS-AMYLASE liquicolor EPS-G7, 37°C	AUTOCAL LOT 0017	µkat/l	2.98	2.80 - 3.15	U/l	179	168 - 189
	AUTOCAL LOT 0018	µkat/l	2.57	2.35 - 2.77	U/l	154	141 - 166
PHOSPHORUS liquirapid Molybdate (UV)	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	2.78	2.62 - 2.94	mg/dl	8.61	8.10 - 9.11
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	2.85	2.63 - 3.07	mg/dl	8.83	8.14 - 9.52
	HumaLyzer photometer	mmol/l	2.77	2.44 - 3.11	mg/dl	8.59	7.55 - 9.62
Potassium ISE direct	HumaStar 600, HumaLyte	mmol/l	6.30	5.91 - 6.69	mval/l	6.30	5.91 - 6.69
POTASSIUM liquiUV Enzymatic	HumaStar analyzer, HumaLyzer photometer	mmol/l	6.46	5.57 - 7.34	mval/l	6.46	5.57 - 7.34
Sodium ISE direct	HumaStar 600, Humalyte	mmol/l	160	155 - 165	mval/l	160	155 - 165
SODIUM liquicolor Enzymatic	HumaStar analyzer, HumaLyzer photometer	mmol/l	151	131 - 171	mval/l	151	131 - 171
SODIUM RAPID Precipitation method	HumaLyzer photometer	mmol/l	134	106 - 161	mval/l	134	106 - 161
TIBC Fe saturation Fe determination using IRON TPTZ liquicolor	HumaStar analyzer	µmol/l	105	87.0 - 123	µg/dl	588	486 - 689
TOTAL PROTEIN liquicolor Biuret	HumaStar analyzer AUTOCAL LOT 0017	g/l	91.2	86.1 - 96.2	g/dl	9.12	8.61 - 9.62
	HumaStar analyzer AUTOCAL LOT 0018	g/l	100.0	94.4 - 106	g/dl	10.0	9.44 - 10.6
	HumaLyzer photometer	g/l	93.9	85.3 - 102	g/dl	9.39	8.53 - 10.2
TRIGLYCERIDES liquicolor[Hoine] GPO POD	HumaStar analyzer AUTOCAL LOT 0017, HumaLyzer photometer	mmol/l	2.68	2.29 - 3.07	mg/dl	235	201 - 269
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	2.74	2.51 - 2.98	mg/dl	240	220 - 261
UREA liquicolor Berthelot mod.	HumaLyzer photometer	mmol/l	23.6	20.0 - 27.3	mg/dl	142	120 - 164
UREA liquiUV Urease (UV)	HumaStar analyzer AUTOCAL LOT 0017, HumaLyzer photometer	mmol/l	23.8	22.1 - 25.6	mg/dl	143	133 - 154
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	22.3	20.8 - 24.0	mg/dl	134	125 - 144
URIC ACID liquicolor[plus] Uricase	HumaLyzer photometer	µmol/l	636	520 - 755	mg/dl	10.7	8.74 - 12.7
	HumaStar analyzer AUTOCAL LOT 0017 and 0018	µmol/l	607	556 - 660	mg/dl	10.2	9.35 - 11.1
URIC ACID liquicolor Uricase	HumaStar analyzer AUTOCAL LOT 0017	µmol/l	569	491 - 648	mg/dl	9.57	8.25 - 10.9
	HumaStar analyzer AUTOCAL LOT 0018	µmol/l	613	504 - 720	mg/dl	10.3	8.47 - 12.1
	HumaLyzer photometer	µmol/l	613	544 - 678	mg/dl	10.3	9.14 - 11.4

Huma

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SERODOS® plus

REF 13151 | LOT 0007 | 2024-08-27 | Version 3/07 - 2021

Target Values / Sollwerte / Valores Asignados/ Valeurs Cibles

Link for latest version of target value sheet:
https://www.human.de/target-value-sheets/

Reagent name / Reagenzbezeichnung / Parámetro / Paramétrie Method / Methode / Método/ Méthode	applicable for / anwendbar für / aplicable por / applicable pour	SI Unit SI Einheit Unidad SI Unité SI	Mean Mittelwert Media Moyenne	Range Bereich Rango Plage de valeurs	Unit Einheit Unidad Unité	Mean Mittelwert Media Moyenne	Range Bereich Rango Plage de valeurs
HUMAN reagent kits							
ACID PHOSPHATASE α-Naphthylphosphate, Hillmann mod., 37°C	AUTOCAL LOT 0017	µkat/l	0.26	0.19 - 0.32	U/l	15.3	11.6 - 18.9
	AUTOCAL LOT 0018	µkat/l	0.28	0.24 - 0.31	U/l	16.5	14.5 - 18.5
ALBUMIN liquicolor Bromcresol green	HumaStar analyzer AUTOCAL LOT 0017 and 0018	g/l	54.3	49.4 - 59.1	g/dl	5.43	4.94 - 5.91
	Humalyzer photometer	g/l	50.2	45.1 - 55.2	g/dl	5.02	4.51 - 5.52
ALKALINE PHOSPHATASE liquicolor AMP buffer, 37°C, IFCC	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	5.43	5.02 - 5.87	U/l	326	301 - 352
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	4.82	4.28 - 5.33	U/l	289	257 - 320
	Humalyzer photometer	µkat/l	4.68	4.15 - 5.22	U/l	281	249 - 313
ALKALINE PHOSPHATASE opt. liquicolor DEA Buffer, 37°C, GSCC/DGKC	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	6.35	5.65 - 7.07	U/l	381	339 - 424
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	6.70	6.18 - 7.22	U/l	402	371 - 433
	Humalyzer photometer	µkat/l	6.85	5.83 - 7.87	U/l	411	350 - 472
	Humalyzer 4000, Setting 004H	µkat/l	5.70	5.00 - 6.40	U/l	342	300 - 384
alpha-AMYLASE liquicolor CNPG3, 37°C, IFCC	HumaStar analyzer AUTOCAL LOT 0017, Humalyzer photometer	µkat/l	4.53	4.07 - 5.02	U/l	272	244 - 301
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	4.70	4.25 - 5.13	U/l	282	255 - 308
APOLIPOPROTEIN A1 Immunoturbidimetry	HumaStar analyzer	g/l	1.65	1.25 - 2.06	mg/dl	165	125 - 206
	Humalyzer photometer	g/l	1.95	1.74 - 2.16	mg/dl	195	174 - 216
APOLIPOPROTEIN B Immunoturbidimetry	HumaStar analyzer, Humalyzer photometer	g/l	1.35	0.95 - 1.74	mg/dl	135	95.3 - 174
auto-BILIRUBIN-D liquicolor DPD method	AUTOCAL LOT 0017	µmol/l	45.2	37.6 - 52.7	mg/dl	2.64	2.20 - 3.08
	AUTOCAL LOT 0018	µmol/l	40.7	38.8 - 42.6	mg/dl	2.38	2.27 - 2.49
	Humalyzer 4000	µmol/l	40.2	26.7 - 53.5	mg/dl	2.35	1.56 - 3.13
auto-BILIRUBIN-T liquicolor DPD method	AUTOCAL LOT 0017, Humalyzer photometer 4000	µmol/l	66.0	61.4 - 70.6	mg/dl	3.86	3.59 - 4.13
	AUTOCAL LOT 0018	µmol/l	68.4	63.3 - 73.4	mg/dl	4.00	3.70 - 4.29
BILIRUBIN liquicolor DCA method	Humalyzer photometer	µmol/l	62.3	50.8 - 73.7	mg/dl	3.64	2.97 - 4.31
BILIRUBIN DIRECT/TOTAL liquicolor Determination of Bilirubin total Jendrassik-Gróf	Humalyzer photometer w/o Humalyzer 4000	µmol/l	65.3	55.2 - 75.4	mg/dl	3.82	3.23 - 4.41
	Humalyzer 4000	µmol/l	60.5	54.0 - 67.0	mg/dl	3.54	3.16 - 3.92
BILIRUBIN DIRECT/TOTAL liquicolor Determination of Bilirubin direct Jendrassik-Gróf	Humalyzer photometer	µmol/l	43.3	34.0 - 52.3	mg/dl	2.53	1.99 - 3.06
CALCIUM liquicolor Ortho-cresolphthalein	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	3.03	2.83 - 3.23	mg/dl	12.1	11.3 - 12.9
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	3.03	2.85 - 3.23	mg/dl	12.1	11.4 - 12.9
	Humalyzer photometer	mmol/l	3.10	2.95 - 3.23	mg/dl	12.4	11.8 - 12.9
Chloride ISE direct	HumaStar 600, Humalyte	mmol/l	116	107 - 124	mg/dl	411	379 - 440
CHLORIDE liquicolor TPTZ method	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	124	117 - 131	mg/dl	440	415 - 464
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	119	108 - 129	mg/dl	422	383 - 457
	Humalyzer photometer Primus only	mmol/l	121	105 - 137	mg/dl	429	372 - 486
	Humalyzer photometer 4000 only	mmol/l	131	116 - 146	mg/dl	464	411 - 518
CHOLESTEROL liquicolor CHOD-PAP	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	8.15	7.03 - 9.26	mg/dl	315	272 - 358
	HumaStar analyzer AUTOCAL LOT 0018, Humalyzer photometer	mmol/l	8.48	7.06 - 9.88	mg/dl	328	273 - 382
CHOLINESTERASE liquicolor Butyrylthiocholine, 37°C, GSCC/DGKC	HumaStar analyzer	µkat/l	131	123 - 140	U/l	7880	7359 - 8400
	Humalyzer 4000	µkat/l	140	126 - 154	U/l	8400	7566 - 9234
CK NAC activated Enzymatic, 37°C	Humalyzer photometer	µkat/l	11.9	9.50 - 14.2	U/l	712	570 - 854
CK NAC liquiUV Enzymatic, 37°C, IFCC	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	13.0	11.9 - 14.1	U/l	782	715 848
	HumaStar analyzer AUTOCAL LOT 0018, Humalyzer 4000/Primus	µkat/l	12.0	10.9 - 13.0	U/l	718	656 - 779
	Humalyzer 2000/3000	µkat/l	10.8	8.50 - 13.1	U/l	649	510 788
auto-CREATININE liquicolor Jaffé	HumaStar analyzer AUTOCAL LOT 0017, Humalyzer photometer	µmol/l	449	350 - 547	mg/dl	5.08	3.96 - 6.19
	HumaStar analyzer AUTOCAL LOT 0018	µmol/l	443	419 - 467	mg/dl	5.01	4.74 - 5.28
CREATININE liquicolor Jaffé	Humalyzer photometer	µmol/l	419	371 - 466	mg/dl	4.74	4.20 - 5.27
CREATININE (enzym) liquicolor Enzymatic	HumaStar analyzer AUTOCAL LOT 0018, w/o HumaStar 600 AUTOCAL LOT 0017	µmol/l	468	429 - 507	mg/dl	5.29	4.85 - 5.73
	HumaStar 600 AUTOCAL LOT 0017	µmol/l	425	395 - 454	mg/dl	4.81	4.47 - 5.14
	Humalyzer 4000	µmol/l	418	349 - 487	mg/dl	4.73	3.95 - 5.51
gamma-GT liquicolor Gamma-Glutamyl-3carboxy-4-nitroanilide, 37°C, IFCC	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	2.25	1.78 - 2.72	U/l	135	107 - 163
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	2.37	2.13 - 2.58	U/l	142	128 - 155
	Humalyzer photometer	µkat/l	2.05	1.72 - 2.37	U/l	123	103 - 142
LUCOSE liquicolor OD	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	11.4	10.7 - 12.0	mg/dl	205	192 - 217
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	11.0	10.3 - 11.7	mg/dl	198	185 - 211
	Humalyzer photometer	mmol/l	11.5	10.4 - 12.5	mg/dl	207	188 - 225
LUCOSE liquiUV^{mono} xokinase	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	11.5	10.5 - 12.5	mg/dl	208	190 - 225
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	11.0	10.3 - 11.8	mg/dl	199	186 - 212
	Humalyzer photometer	mmol/l	12.4	10.8 - 14.0	mg/dl	223	194 - 252

SERODOS® plus

REF 13151

LOT 0007

2024-08-27

Version 3/07 - 2021

Link for latest version of target value sheet:
https://www.human.de/target-value-sheets/

Target Values / Sollwerte / Valores Asignados/ Valeurs Cibles

Reagent name / Reagenzbezeichnung / Parámetro / Paramètre Method / Methode / Método/ Méthode	applicable for / anwendbar für / aplicable por / applicable pour	SI Unit SI Einheit Unidad SI Unité SI	Mean Mittelwert Media Moyenne	Range Bereich Rango Plage de valeurs	Unit Einheit Unidad Unité	Mean Mittelwert Media Moyenne	Range Bereich Rango Plage de valeurs
HUMAN reagent kits							
ACID PHOSPHATASE a-Naphthylphosphate, Hillmann mod., 37°C	AUTOCAL LOT 0017	µkat/l	0.26	0.19 - 0.32	U/l	15.9	11.6 - 18.9
	AUTOCAL LOT 0018	µkat/l	0.28	0.24 - 0.31	U/l	16.5	14.5 - 18.5
ALBUMIN liquicolor Bromcresol green	HumaStar analyzer AUTOCAL LOT 0017 and 0018	g/l	54.3	49.4 - 59.1	g/dl	5.43	4.94 - 5.91
	HumaLyzer photometer	g/l	50.2	45.1 - 55.2	g/dl	5.02	4.51 - 5.52
ALKALINE PHOSPHATASE liquicolor AMP buffer, 37°C, IFCC	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	5.43	5.02 - 5.87	U/l	326	301 - 352
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	4.82	4.28 - 5.33	U/l	289	257 - 320
	HumaLyzer photometer	µkat/l	4.68	4.15 - 5.22	U/l	281	249 - 313
ALKALINE PHOSPHATASE opt. liquicolor DEA Buffer, 37°C, GSCC/DGKC	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	6.35	5.65 - 7.07	U/l	381	339 - 424
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	6.70	6.18 - 7.22	U/l	402	371 - 433
	HumaLyzer photometer	µkat/l	6.85	5.83 - 7.87	U/l	411	350 - 472
	HumaLyzer 4000, Setting 004H	µkat/l	5.70	5.00 - 6.40	U/l	342	300 - 384
alpha-AMYLASE liquicolor CNPG3, 37°C, IFCC	HumaStar analyzer AUTOCAL LOT 0017, HumaLyzer photometer	µkat/l	4.53	4.07 - 5.02	U/l	272	244 - 301
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	4.70	4.25 - 5.13	U/l	282	255 - 308
APOLIPOPROTEIN A1 Immunoturbidimetry	HumaStar analyzer	g/l	1.65	1.25 - 2.06	mg/dl	165	125 - 206
	HumaLyzer photometer	g/l	1.95	1.74 - 2.16	mg/dl	195	174 - 216
APOLIPOPROTEIN B Immunoturbidimetry	HumaStar analyzer, HumaLyzer photometer	g/l	1.35	0.95 - 1.74	mg/dl	135	95.3 - 174
auto-BILIRUBIN-D liquicolor DPD method	AUTOCAL LOT 0017	µmol/l	45.2	37.6 - 52.7	mg/dl	2.64	2.20 - 3.08
	AUTOCAL LOT 0018	µmol/l	40.7	38.8 - 42.6	mg/dl	2.38	2.27 - 2.49
	HumaLyzer 4000	µmol/l	40.2	26.7 - 53.5	mg/dl	2.35	1.56 - 3.13
auto-BILIRUBIN-T liquicolor DPD method	AUTOCAL LOT 0017, HumaLyzer photometer 4000	µmol/l	66.0	61.4 - 70.6	mg/dl	3.86	3.59 - 4.13
	AUTOCAL LOT 0018	µmol/l	68.4	63.3 - 73.4	mg/dl	4.00	3.70 - 4.29
BILIRUBIN liquicolor DCA method	HumaLyzer photometer	µmol/l	62.3	50.8 - 73.7	mg/dl	3.64	2.97 - 4.31
BILIRUBIN DIRECT/TOTAL liquicolor Determination of Bilirubin total Jendrassik-Gróf	HumaLyzer photometer w/o HumaLyzer 4000	µmol/l	65.3	55.2 - 75.4	mg/dl	3.82	3.23 - 4.41
	HumaLyzer 4000	µmol/l	60.5	54.0 - 67.0	mg/dl	3.54	3.16 - 3.92
BILIRUBIN DIRECT/TOTAL liquicolor Determination of Bilirubin direct Jendrassik-Gróf	HumaLyzer photometer	µmol/l	43.3	34.0 - 52.3	mg/dl	2.53	1.99 - 3.06
CALCIUM liquicolor Ortho-cresolphthalein	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	3.03	2.83 - 3.23	mg/dl	12.1	11.3 - 12.9
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	3.03	2.85 - 3.23	mg/dl	12.1	11.4 - 12.9
	HumaLyzer photometer	mmol/l	3.10	2.95 - 3.23	mg/dl	12.4	11.8 - 12.9
Chloride ISE direct	HumaStar 600, HumaLyte	mmol/l	116	107 - 124	mg/dl	411	379 - 440
CHLORIDE liquicolor TPTZ method	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	124	117 - 131	mg/dl	440	415 - 464
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	119	108 - 129	mg/dl	422	383 - 457
	HumaLyzer photometer Primus only	mmol/l	121	105 - 137	mg/dl	429	372 - 486
	HumaLyzer photometer 4000 only	mmol/l	131	116 - 146	mg/dl	464	411 - 518
CHOLESTEROL liquicolor CHOD-PAP	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	8.15	7.03 - 9.26	mg/dl	315	272 - 358
	HumaStar analyzer AUTOCAL LOT 0018, HumaLyzer photometer	mmol/l	8.48	7.06 - 9.88	mg/dl	328	273 - 382
CHOLINESTERASE liquicolor Butyrylthiocholine, 37°C, GSCC/DGKC	HumaStar analyzer	µkat/l	131	123 - 140	U/l	7880	7359 - 8400
	HumaLyzer 4000	µkat/l	140	126 - 154	U/l	8400	7566 - 9234
CK NAC activated Enzymatic, 37°C	HumaLyzer photometer	µkat/l	11.9	9.50 - 14.2	U/l	712	570 - 854
CK NAC liquiUV Enzymatic, 37°C, IFCC	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	13.0	11.9 - 14.1	U/l	782	715 848
	HumaStar analyzer AUTOCAL LOT 0018, HumaLyzer 4000/Primus	µkat/l	12.0	10.9 - 13.0	U/l	718	656 - 779
	HumaLyzer 2000/3000	µkat/l	10.8	8.50 - 13.1	U/l	649	510 788
auto-CREATININE liquicolor Jaffé	HumaStar analyzer AUTOCAL LOT 0017, HumaLyzer photometer	µmol/l	449	350 - 547	mg/dl	5.08	3.96 - 6.19
	HumaStar analyzer AUTOCAL LOT 0018	µmol/l	443	419 - 467	mg/dl	5.01	4.74 - 5.28
CREATININE liquicolor Jaffé	HumaLyzer photometer	µmol/l	419	371 - 466	mg/dl	4.74	4.20 - 5.27
CREATININE (enzym) liquicolor Enzymatic	HumaStar analyzer AUTOCAL LOT 0018, w/o HumaStar 600 AUTOCAL LOT 0017	µmol/l	468	429 - 507	mg/dl	5.29	4.85 - 5.73
	HumaStar 600 AUTOCAL LOT 0017	µmol/l	425	395 - 454	mg/dl	4.81	4.47 - 5.14
	HumaLyzer 4000	µmol/l	418	349 - 487	mg/dl	4.73	3.95 - 5.51
gamma-GT liquicolor Gamma-Glutamyl-3carboxy-4-nitroanilide, 37°C, IFCC	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	2.25	1.78 - 2.72	U/l	135	107 - 163
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	2.37	2.13 - 2.58	U/l	142	128 - 155
	HumaLyzer photometer	µkat/l	2.05	1.72 - 2.37	U/l	123	103 - 142
GLUCOSE liquicolor GOD	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	11.4	10.7 - 12.0	mg/dl	205	192 - 217
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	11.0	10.3 - 11.7	mg/dl	198	185 - 211
	HumaLyzer photometer	mmol/l	11.5	10.4 - 12.5	mg/dl	207	188 - 225
GLUCOSE liquiUV^{mono} Hexokinase	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	11.5	10.5 - 12.5	mg/dl	208	190 - 225
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	11.0	10.3 - 11.8	mg/dl	199	186 - 212
	HumaLyzer photometer	mmol/l	12.4	10.8 - 14.0	mg/dl	223	194 - 252

Reagent name / Reagenzbezeichnung / Parámetro / Paramètre Method / Methode / Método/ Méthode	applicable for / anwendbar für / aplicable por / applicable pour	SI Unit SI Einheit Unidad SI Unité SI	Mean Mittelwert Media Moyenne	Range Bereich Rango Plage de valeurs	Unit Einheit Unidad Unité	Mean Mittelwert Media Moyenne	Range Bereich Rango Plage de valeurs
GOT (ASAT) IFCC mod. liquiUV Enzymatic, 37°C, IFCC without P5P	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	2.23	2.10 - 2.38	U/l	134	126 - 143
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	2.05	1.92 - 2.18	U/l	123	115 - 131
	HumaLyzer photometer	µkat/l	2.08	1.82 - 2.33	U/l	125	109 - 140
GPT (ALAT) IFCC mod. liquiUV Enzymatic, 37°C, IFCC without P5P	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	2.05	1.88 - 2.20	U/l	123	113 - 132
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	1.98	1.77 - 2.20	U/l	119	106 - 132
	HumaLyzer photometer	µkat/l	1.92	1.60 - 2.25	U/l	115	96.1 - 135
HDL CHOLESTEROL liquicolor Homogenous enzymatic assay	AUTOCAL LOT 0017	mmol/l	3.15	2.69 - 3.62	mg/dl	122	104 - 140
	AUTOCAL LOT 0018	mmol/l	2.61	2.24 - 3.00	mg/dl	101	86.8 - 116
	for Kit calibrator only	mmol/l	2.77	2.43 - 3.10	mg/dl	107	94.1 - 120
HDL CHOLESTEROL Precipitation method	HumaLyzer photometer	mmol/l	3.31	2.92 - 3.72	mg/dl	128	113 - 144
IRON liquicolor CAB	HumaStar analyzer AUTOCAL LOT 0017	µmol/l	52.1	37.8 - 66.2	µg/dl	291	211 - 370
	HumaStar analyzer AUTOCAL LOT 0018	µmol/l	50.8	46.2 - 55.7	µg/dl	284	258 - 311
	HumaLyzer photometer	µmol/l	39.9	27.2 - 52.6	µg/dl	223	152 - 294
IRON TPTZ liquicolor TPTZ	HumaStar analyzer AUTOCAL LOT 0017	µmol/l	54.4	49.9 - 59.1	µg/dl	304	279 - 330
	HumaStar analyzer AUTOCAL LOT 0018	µmol/l	53.2	49.9 - 56.6	µg/dl	297	279 - 316
	HumaLyzer photometer	µmol/l	51.7	45.3 - 58.2	µg/dl	289	253 - 325
IMMUNOGLOBULINS direct IgA Immunoturbidimetry	HumaStar analyzer, HumaLyzer photometer	g/l	2.58	2.28 - 2.88	mg/dl	258	228 - 288
IMMUNOGLOBULINS direct IgG Immunoturbidimetry	HumaStar analyzer, HumaLyzer photometer	g/l	12.3	9.83 - 14.8	mg/dl	1234	983 - 1484
IMMUNOGLOBULINS direct IgM Immunoturbidimetry	HumaStar 600, HumaLyzer 4000	g/l	0.86	0.78 - 0.93	mg/dl	85.6	78.2 - 93.0
	HumaStar 100/200/300SR, HumaLyzer 2000/3000	g/l	1.16	0.90 - 1.43	mg/dl	116	89.7 - 143
LDH SCE mod. liquiUV Substrate Pyruvate, 37°C, SCE	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	11.6	10.4 - 12.8	U/l	696	625 - 767
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	11.3	10.3 - 12.2	U/l	676	619 - 733
	HumaLyzer photometer	µkat/l	11.3	9.42 - 13.2	U/l	677	565 - 790
LDL CHOLESTEROL liquicolor Homogenous enzymatic assay	AUTOCAL LOT 0017	mmol/l	4.22	2.82 - 5.64	mg/dl	163	109 - 218
	AUTOCAL LOT 0018	mmol/l	4.58	3.05 - 6.10	mg/dl	177	118 - 236
	Kit calibrator	mmol/l	4.78	3.62 - 5.95	mg/dl	185	140 - 230
LIPASE liquicolor Substrate Methylresorufin, 37°C	LOT 21001 and higher: AUTOCAL LOT 0017	µkat/l	1.39	1.25 - 1.53	U/l	83.5	75.0 - 92.0
	LOT 21001 and higher: AUTOCAL LOT 0018	µkat/l	1.21	1.05 - 1.37	U/l	72.5	62.9 - 82.1
	up to LOT 20010: AUTOCAL LOT 0017 and 0018	µkat/l	1.09	0.81 - 1.38	U/l	65.5	48.4 - 82.6
MAGNESIUM liquicolor Xylidyl blue	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	1.30	1.16 - 1.43	mg/dl	3.15	2.83 - 3.47
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	1.24	1.07 - 1.41	mg/dl	3.01	2.59 - 3.43
	HumaLyzer photometer	mmol/l	1.34	1.21 - 1.47	mg/dl	3.25	2.93 - 3.57
PANCREAS-AMYLASE liquicolor EPS-G7, 37°C	AUTOCAL LOT 0017	µkat/l	2.98	2.80 - 3.15	U/l	179	168 - 189
	AUTOCAL LOT 0018	µkat/l	2.57	2.35 - 2.77	U/l	154	141 - 166
PHOSPHORUS liquirapid Molybdate (UV)	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	2.78	2.62 - 2.94	mg/dl	8.61	8.10 - 9.11
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	2.85	2.63 - 3.07	mg/dl	8.83	8.14 - 9.52
	HumaLyzer photometer	mmol/l	2.77	2.44 - 3.11	mg/dl	8.59	7.55 - 9.62
Potassium ISE direct	HumaStar 600, HumaLyte	mmol/l	6.30	5.91 - 6.69	mval/l	6.30	5.91 - 6.69
POTASSIUM liquiUV Enzymatic	HumaStar analyzer, HumaLyzer photometer	mmol/l	6.46	5.57 - 7.34	mval/l	6.46	5.57 - 7.34
Sodium ISE direct	HumaStar 600, Humalyte	mmol/l	160	155 - 165	mval/l	160	155 - 165
SODIUM liquicolor Enzymatic	HumaStar analyzer, HumaLyzer photometer	mmol/l	151	131 - 171	mval/l	151	131 - 171
SODIUM RAPID Precipitation method	HumaLyzer photometer	mmol/l	134	106 - 161	mval/l	134	106 - 161
TIBC Fe saturation Fe determination using IRON TPTZ liquicolor	HumaStar analyzer	µmol/l	105	87.0 - 123	µg/dl	588	486 - 689
TOTAL PROTEIN liquicolor Biuret	HumaStar analyzer AUTOCAL LOT 0017	g/l	91.2	86.1 - 96.2	g/dl	9.12	8.61 - 9.62
	HumaStar analyzer AUTOCAL LOT 0018	g/l	100.0	94.4 - 106	g/dl	10.0	9.44 - 10.6
	HumaLyzer photometer	g/l	93.9	85.3 - 102	g/dl	9.39	8.53 - 10.2
TRIGLYCERIDES liquicolor[mono] GPO POD	HumaStar analyzer AUTOCAL LOT 0017, HumaLyzer photometer	mmol/l	2.68	2.29 - 3.07	mg/dl	235	201 - 269
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	2.74	2.51 - 2.98	mg/dl	240	220 - 261
UREA liquicolor Berthelot mod.	HumaLyzer photometer	mmol/l	23.6	20.0 - 27.3	mg/dl	142	120 - 164
UREA liquiUV Urease (UV)	HumaStar analyzer AUTOCAL LOT 0017, HumaLyzer photometer	mmol/l	23.8	22.1 - 25.6	mg/dl	143	133 - 154
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	22.3	20.8 - 24.0	mg/dl	134	125 - 144
URIC ACID liquicolor[plus] Uricase	HumaLyzer photometer	µmol/l	636	520 - 755	mg/dl	10.7	8.74 - 12.7
	HumaStar analyzer AUTOCAL LOT 0017 and 0018	µmol/l	607	556 - 660	mg/dl	10.2	9.35 - 11.1
URIC ACID liquicolor Uricase	HumaStar analyzer AUTOCAL LOT 0017	µmol/l	569	491 - 648	mg/dl	9.57	8.25 - 10.9
	HumaStar analyzer AUTOCAL LOT 0018	µmol/l	613	504 - 720	mg/dl	10.3	8.47 - 12.1
	HumaLyzer photometer	µmol/l	613	544 - 678	mg/dl	10.3	9.14 - 11.4

CS-SF
Rev. 003 | valid as of 13.03.2023
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SERODOS® plus

REF 13131

LOT 0007

2024-08-27

Version 3/07 - 2021

Link for latest version of target value sheet: https://www.human.de/target-value-sheets/

Target Values / Sollwerte / Valores Asignados/ Valeurs Cibles

Reagent name / Reagenzbezeichnung / Parámetro / Paramètre Method / Methode / Método/ Methode	applicable for / anwendbar für / aplicable por / applicable pour	SI Unit SI Einheit Unidad SI Unité SI	Mean Mittelwert Media Moyenne	Range Bereich Rango Plage de valeurs	Unit Einheit Unidad Unité	Mean Mittelwert Media Moyenne	Range Bereich Rango Plage de valeurs
HUMAN reagent kits							
ACID PHOSPHATASE o-Naphthylphosphate, Hillmann mod., 37°C	AUTOCAL LOT 0017	µkat/l	0.26	0.19 - 0.32	U/l	15.3	11.6 - 18.9
	AUTOCAL LOT 0018	µkat/l	0.28	0.24 - 0.33	U/l	16.5	14.5 - 18.5
ALBUMIN liquicolor Bromcresol green	HumaStar analyser AUTOCAL LOT 0017 and 0018	g/l	54.9	49.4 - 59.1	g/dl	5.49	4.94 - 5.93
	HumaLyzer photometer	g/l	50.2	45.1 - 55.2	g/dl	5.02	4.51 - 5.52
ALKALINE PHOSPHATASE liquicolor AMP buffer, 37°C, IFCC	HumaStar analyser AUTOCAL LOT 0017	µkat/l	5.43	5.02 - 5.87	U/l	326	301 - 352
	HumaStar analyser AUTOCAL LOT 0018	µkat/l	4.82	4.28 - 5.41	U/l	289	257 - 330
	HumaLyzer photometer	µkat/l	4.68	4.15 - 5.22	U/l	281	249 - 313
	HumaStar analyser AUTOCAL LOT 0017	µkat/l	6.35	5.65 - 7.07	U/l	381	339 - 424
ALKALINE PHOSPHATASE opt. liquicolor DEA Buffer, 37°C, GSCC/DGKC	HumaStar analyser AUTOCAL LOT 0018	µkat/l	6.70	6.18 - 7.22	U/l	402	371 - 433
	HumaLyzer photometer	µkat/l	6.85	5.83 - 7.87	U/l	411	350 - 472
	Humalyzer 4000, Setting 10681	µkat/l	5.70	5.00 - 6.40	U/l	343	300 - 384
alpha-AMYLASE liquicolor CNPG3, 37°C, IFCC	HumaStar analyser AUTOCAL LOT 0017, HumaLyzer photometer	µkat/l	4.53	4.07 - 5.02	U/l	272	244 - 301
	HumaStar analyser AUTOCAL LOT 0018	µkat/l	4.70	4.25 - 5.13	U/l	282	255 - 308
	HumaStar analyser	g/l	1.65	1.25 - 2.06	mg/dl	165	125 - 206
APOLIPOPROTEIN A1 Immunoturbidimetry	HumaLyzer photometer	g/l	1.95	1.74 - 2.16	mg/dl	195	174 - 216
APOLIPOPROTEIN B Immunoturbidimetry	HumaStar analyser, Humalyzer photometer	g/l	1.35	0.95 - 1.74	mg/dl	135	95.3 - 174
auto-BILIRUBIN-O liquicolor DPD method	AUTOCAL LOT 0017	µmol/l	45.2	37.6 - 52.7	mg/dl	2.64	2.20 - 3.08
	AUTOCAL LOT 0018	µmol/l	40.7	38.8 - 42.6	mg/dl	2.38	2.27 - 2.49
	Humalyzer 4000	µmol/l	40.2	26.7 - 53.5	mg/dl	2.35	1.56 - 3.13
auto-BILIRUBIN-T liquicolor DPD method	AUTOCAL LOT 0017, HumaLyzer photometer 4000	µmol/l	66.0	61.4 - 70.6	mg/dl	3.86	3.59 - 4.13
	AUTOCAL LOT 0018	µmol/l	68.4	63.3 - 73.4	mg/dl	4.00	3.70 - 4.29
BILIRUBIN liquicolor DCA method	HumaLyzer photometer	µmol/l	62.3	50.8 - 73.7	mg/dl	3.64	2.97 - 4.31
BILIRUBIN DIRECT/TOTAL liquicolor Determination of Bilirubin total Jendrassik-Grõf	HumaLyzer photometer w/o HumaLyzer 4000	µmol/l	65.3	55.2 - 75.4	mg/dl	3.82	3.23 - 4.41
	HumaLyzer 4000	µmol/l	60.5	54.0 - 67.0	mg/dl	3.54	3.16 - 3.92
BILIRUBIN DIRECT/TOTAL liquicolor Determination of Bilirubin direct Jendrassik-Grõf	HumaLyzer photometer	µmol/l	49.3	34.0 - 52.3	mg/dl	2.53	1.99 - 3.06
CALCIUM liquicolor Ortho-cresolphthalein	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	3.03	2.83 - 3.23	mg/dl	12.1	11.3 - 12.9
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	3.03	2.85 - 3.23	mg/dl	12.1	11.4 - 12.9
	HumaLyzer photometer	mmol/l	3.10	2.95 - 3.23	mg/dl	12.4	11.8 - 12.9
Chloride ISE direct	HumaStar 600, Humalyte	mmol/l	116	107 - 124	mg/dl	411	379 - 440
CHLORIDE liquicolor TPTZ method	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	124	117 - 131	mg/dl	440	415 - 464
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	119	108 - 129	mg/dl	422	383 - 457
	HumaLyzer photometer Primus only	mmol/l	121	105 - 137	mg/dl	429	372 - 486
	HumaLyzer photometer 4000 only	mmol/l	131	116 - 146	mg/dl	464	411 - 518
CHOLESTEROL liquicolor CHOD-PAP	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	8.15	7.03 - 9.26	mg/dl	315	272 - 358
	HumaStar analyzer AUTOCAL LOT 0018, HumaLyzer photometer	mmol/l	8.48	7.06 - 9.88	mg/dl	328	273 - 382
CHOLINESTERASE liquicolor Butyrylthiocholine, 37°C, GSCC/DGKC	HumaStar analyzer	µkat/l	131	123 - 140	U/l	7880	7359 - 8400
	HumaLyzer 4000	µkat/l	140	126 - 154	U/l	8400	7566 - 9234
CK NAC activated Enzymatic, 37°C	HumaLyzer photometer	µkat/l	11.9	9.50 - 14.2	U/l	712	570 - 854
CK NAC liquiUV Enzymatic, 37°C, IFCC	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	13.0	11.9 - 14.1	U/l	782	715 - 848
	HumaStar analyzer AUTOCAL LOT 0018, HumaLyzer 4000/Primus	µkat/l	12.0	10.9 - 13.0	U/l	718	656 - 779
	HumaLyzer 2000/3000	µkat/l	10.8	8.50 - 13.1	U/l	649	510 - 788
auto-CREATININE liquicolor Jaffé	HumaStar analyzer AUTOCAL LOT 0017, HumaLyzer photometer	µmol/l	449	350 - 547	mg/dl	5.08	3.96 - 6.19
	HumaStar analyzer AUTOCAL LOT 0018	µmol/l	443	419 - 467	mg/dl	5.01	4.74 - 5.28
CREATININE liquicolor Jaffé	HumaLyzer photometer	µmol/l	419	371 - 466	mg/dl	4.74	4.20 - 5.27
CREATININE (enzym) liquicolor Enzymatic	HumaStar analyzer AUTOCAL LOT 0018, w/o HumaStar 600 AUTOCAL LOT 0017	µmol/l	468	429 - 507	mg/dl	5.29	4.85 - 5.73
	HumaStar 600 AUTOCAL LOT 0017	µmol/l	425	395 - 454	mg/dl	4.81	4.47 - 5.14
	Humalyzer 4000	µmol/l	418	349 - 487	mg/dl	4.73	3.95 - 5.51
gamma-GT liquicolor Gamma-Glutamyl- 3carboxy-4-nitroanilide, 37°C, IFCC	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	2.25	1.78 - 2.72	U/l	135	107 - 163
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	2.37	2.13 - 2.58	U/l	142	128 - 155
	HumaLyzer photometer	µkat/l	2.05	1.72 - 2.37	U/l	123	103 - 142
GLUCOSE liquicolor GOD	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	11.4	10.7 - 12.0	mg/dl	205	192 - 217
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	11.0	10.3 - 11.7	mg/dl	198	185 - 211
	HumaLyzer photometer	mmol/l	11.5	10.4 - 12.5	mg/dl	207	188 - 225
GLUCOSE liquiUV^{mono} Hexokinase	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	11.5	10.5 - 12.5	mg/dl	208	190 - 225
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	11.0	10.3 - 11.8	mg/dl	199	186 - 213
	HumaLyzer photometer	mmol/l	12.4	10.8 - 14.0	mg/dl	223	194 - 252

Reagent name / Reagenzbezeichnung / Parametro / Paramètre Method / Methode / Método/ Méthode	applicable for / anwendbar für / aplicable por / applicable pour	SI Unit SI Einheit Unidad SI Unité SI	Mean Mittelwert Media Moyenne	Range Bereich Rango Plage de valeurs	Unit Einheit Unidad Unité	Mean Mittelwert Media Moyenne	Range Bereich Rango Plage de valeurs
GOT (ASAT) IFCC mod. liquiUV Enzymatic, 37°C, IFCC without P5P	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	2.23	2.10 - 2.38	U/l	134	126 - 143
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	2.05	1.92 - 2.18	U/l	123	115 - 131
	HumaLyzer photometer	µkat/l	2.08	1.82 - 2.33	U/l	125	109 - 140
GPT (ALAT) IFCC mod. liquiUV Enzymatic, 37°C, IFCC without P5P	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	2.05	1.88 - 2.20	U/l	123	113 - 132
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	1.98	1.77 - 2.20	U/l	119	106 - 132
	HumaLyzer photometer	µkat/l	1.92	1.60 - 2.25	U/l	115	96.1 - 135
HDL CHOLESTEROL liquicolor Homogenous enzymatic assay	AUTOCAL LOT 0017	mmol/l	3.15	2.69 - 3.62	mg/dl	122	104 - 140
	AUTOCAL LOT 0018	mmol/l	2.61	2.24 - 3.00	mg/dl	101	86.8 - 116
	for Kit calibrator only	mmol/l	2.77	2.43 - 3.10	mg/dl	107	94.1 - 120
HDL CHOLESTEROL Precipitation method	HumaLyzer photometer	mmol/l	3.31	2.92 - 3.72	mg/dl	128	113 - 144
IRON liquicolor CAB	HumaStar analyzer AUTOCAL LOT 0017	µmol/l	52.1	37.8 - 66.2	µg/dl	291	211 - 370
	HumaStar analyzer AUTOCAL LOT 0018	µmol/l	50.8	46.2 - 55.7	µg/dl	284	258 - 311
	HumaLyzer photometer	µmol/l	39.9	27.2 - 52.6	µg/dl	223	152 - 294
IRON TPTZ liquicolor TPTZ	HumaStar analyzer AUTOCAL LOT 0017	µmol/l	54.4	49.9 - 59.1	µg/dl	304	279 - 330
	HumaStar analyzer AUTOCAL LOT 0018	µmol/l	53.2	49.9 - 56.6	µg/dl	297	279 - 316
	HumaLyzer photometer	µmol/l	51.7	45.3 - 58.2	µg/dl	289	253 - 325
IMMUNOGLOBULINS direct IgA Immunoturbidimetry	HumaStar analyzer, HumaLyzer photometer	g/l	2.58	2.28 - 2.88	mg/dl	258	228 - 288
IMMUNOGLOBULINS direct IgG Immunoturbidimetry	HumaStar analyzer, HumaLyzer photometer	g/l	12.3	9.83 - 14.8	mg/dl	1234	983 - 1484
IMMUNOGLOBULINS direct IgM Immunoturbidimetry	HumaStar 600, HumaLyzer 4000	g/l	0.86	0.78 - 0.93	mg/dl	85.6	78.2 - 93.0
	HumaStar 100/200/300SR, HumaLyzer 2000/3000	g/l	1.16	0.90 - 1.43	mg/dl	116	89.7 - 143
LDH SCE mod. liquiUV Substrate Pyruvate, 37°C, SCE	HumaStar analyzer AUTOCAL LOT 0017	µkat/l	11.6	10.4 - 12.8	U/l	696	625 - 767
	HumaStar analyzer AUTOCAL LOT 0018	µkat/l	11.3	10.3 - 12.2	U/l	676	619 - 733
	HumaLyzer photometer	µkat/l	11.3	9.42 - 13.2	U/l	677	565 - 790
LDL CHOLESTEROL liquicolor Homogenous enzymatic assay	AUTOCAL LOT 0017	mmol/l	4.22	2.82 - 5.64	mg/dl	163	109 - 218
	AUTOCAL LOT 0018	mmol/l	4.58	3.05 - 6.10	mg/dl	177	118 - 236
	Kit calibrator	mmol/l	4.78	3.62 - 5.95	mg/dl	185	140 - 230
LIPASE liquicolor Substrate Methylresorufin, 37°C	LOT 21001 and higher: AUTOCAL LOT 0017	µkat/l	1.39	1.25 - 1.53	U/l	83.5	75.0 - 92.0
	LOT 21001 and higher: AUTOCAL LOT 0018	µkat/l	1.21	1.05 - 1.37	U/l	72.5	62.9 - 82.1
	up to LOT 20010: AUTOCAL LOT 0017 and 0018	µkat/l	1.09	0.81 - 1.38	U/l	65.5	48.4 - 82.6
MAGNESIUM liquicolor Xylidyl blue	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	1.30	1.16 - 1.43	mg/dl	3.15	2.83 - 3.47
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	1.24	1.07 - 1.41	mg/dl	3.01	2.59 - 3.43
	HumaLyzer photometer	mmol/l	1.34	1.21 - 1.47	mg/dl	3.25	2.93 - 3.57
PANCREAS-AMYLASE liquicolor EPS-G7, 37°C	AUTOCAL LOT 0017	µkat/l	2.98	2.80 - 3.15	U/l	179	168 - 189
	AUTOCAL LOT 0018	µkat/l	2.57	2.35 - 2.77	U/l	154	141 - 166
PHOSPHORUS liquirapid Molybdate (UV)	HumaStar analyzer AUTOCAL LOT 0017	mmol/l	2.78	2.62 - 2.94	mg/dl	8.61	8.10 - 9.11
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	2.85	2.63 - 3.07	mg/dl	8.83	8.14 - 9.52
	HumaLyzer photometer	mmol/l	2.77	2.44 - 3.11	mg/dl	8.59	7.55 - 9.62
Potassium ISE direct	HumaStar 600, Humalyte	mmol/l	6.30	5.91 - 6.69	mval/l	6.30	5.91 - 6.69
POTASSIUM liquiUV Enzymatic	HumaStar analyzer, HumaLyzer photometer	mmol/l	6.46	5.57 - 7.34	mval/l	6.46	5.57 - 7.34
Sodium ISE direct	HumaStar 600, Humalyte	mmol/l	160	155 - 165	mval/l	160	155 - 165
SODIUM liquicolor Enzymatic	HumaStar analyzer, HumaLyzer photometer	mmol/l	151	131 - 171	mval/l	151	131 - 171
SODIUM RAPID Precipitation method	HumaLyzer photometer	mmol/l	134	106 - 161	mval/l	134	106 - 161
TIBC Fe saturation Fe determination using IRON TPTZ liquicolor	HumaStar analyzer	µmol/l	105	87.0 - 123	µg/dl	588	486 - 689
TOTAL PROTEIN liquicolor Biuret	HumaStar analyzer AUTOCAL LOT 0017	g/l	91.2	86.1 - 96.2	g/dl	9.12	8.61 - 9.62
	HumaStar analyzer AUTOCAL LOT 0018	g/l	100.0	94.4 - 106	g/dl	10.0	9.44 - 10.6
	HumaLyzer photometer	g/l	93.9	85.3 - 102	g/dl	9.39	8.53 - 10.2
TRIGLYCERIDES liquicolor[mono] GPO POD	HumaStar analyzer AUTOCAL LOT 0017, HumaLyzer photometer	mmol/l	2.68	2.29 - 3.07	mg/dl	235	201 - 269
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	2.74	2.51 - 2.98	mg/dl	240	220 - 261
UREA liquicolor Berthelot mod.	HumaLyzer photometer	mmol/l	23.6	20.0 - 27.3	mg/dl	142	120 - 164
UREA liquiUV Urease (UV)	HumaStar analyzer AUTOCAL LOT 0017, HumaLyzer photometer	mmol/l	23.8	22.1 - 25.6	mg/dl	143	133 - 154
	HumaStar analyzer AUTOCAL LOT 0018	mmol/l	22.3	20.8 - 24.0	mg/dl	134	125 - 144
URIC ACID liquicolor[plus] Uricase	HumaLyzer photometer	µmol/l	636	520 - 755	mg/dl	10.7	8.74 - 12.7
	HumaStar analyzer AUTOCAL LOT 0017 and 0018	µmol/l	607	556 - 660	mg/dl	10.2	9.35 - 11.1
URIC ACID liquicolor Uricase	HumaStar analyzer AUTOCAL LOT 0017	µmol/l	569	491 - 648	mg/dl	9.57	8.25 - 10.9
	HumaStar analyzer AUTOCAL LOT 0018	µmol/l	613	504 - 720	mg/dl	10.3	8.47 - 12.1
	HumaLyzer photometer	µmol/l	613	544 - 678	mg/dl	10.3	9.14 - 11.4

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