# HUMAN ASSAYED MULTI-SERA - LEVEL 2 (HUM ASY CONTROL 2)

**CAT. NO.** HN1530 / HS2611 **LOT NO.** 943UN
**SIZE:** 20 x 5 ml / 5 x 5 ml **EXPIRY:** 2018-06

## INTENDED USE
This product is intended for *in vitro* diagnostic use in the quality control of diagnostic assays. The Human Assayed Multi-sera is for the control of accuracy.

## DEVICE DESCRIPTION
The Human Assayed Multi-sera is supplied at 2 levels, level 2 and 3. Target values and ranges are supplied for the analytes listed in the values section at both levels.

## SAFETY PRECAUTIONS AND WARNINGS
For *in vitro* diagnostic use only. Do not pipette by mouth. Exercise the normal precautions required for handling laboratory reagents.

Human source material, from which this product has been derived, has been tested at donor level for the Human Immunodeficiency Virus (HIV 1, HIV 2) antibody, Hepatitis B Surface Antigen (HbsAg), and Hepatitis C Virus (HCV) antibody and found to be NON-REACTIVE. FDA approved methods have been used to conduct these tests.
However, since no method can offer complete assurance as to the absence of infectious agents, this material and all patient samples should be handled as though capable of transmitting infectious diseases and disposed of accordingly.

Health and Safety Data Sheets are available on request.

## STORAGE AND STABILITY
OPENED: Store refrigerated (+2°C to +8°C). Reconstituted serum is stable for 8 hours at +15°C to +25°C or 7 days at +2°C to +8°C, and 28 days when frozen once at –20°C (see Limitations).

UNOPENED: Store refrigerated (+2°C to +8°C). Stable to expiration date printed on individual vials.

## LIMITATIONS
For Total & Prostatic Acid Phosphatase, the material should be stabilised by adding 1 drop (25 - 30 µl) of 0.7M Acetic acid solution to 1 ml of the serum exactly 30 minutes after reconstitution. After stabilisation Total and Prostatic Acid Phosphatase is stable for 2 hours at +15°C to +25°C, 2 days at +2°C to +8°C, and 28 days when frozen once at –20°C.
Alkaline Phosphatase levels in the reconstituted serum will rise over the stability period. It is recommended that the reconstituted serum is allowed to stand for 1 hour at +15°C to +25°C before measurement.
Bilirubin in the serum is light sensitive and it is recommended that the serum is stored in the dark. Stored in the dark, it is stable for 4 days at +2°C to +8°C. Do not store at +15°C to +25°C. Do not freeze.
NEFA is stable for 1 day at +2°C to +8°C.
Total PSA is stable for 4 days at +2°C to +8°C, or 28 days in aliquots frozen at –20°C.
Bacterial contamination of the reconstituted serum will cause reductions in the stability of many components.
Different lot numbers of this control should not be interchanged, as the values assigned to the controls vary from lot to lot.
The control should not be used as a calibration material.

## PREPARATION FOR USE
The Human Assayed Multi-sera is supplied lyophilised.
1. Carefully reconstitute each vial of lyophilised serum with exactly 5 ml of distilled water at +15°C to +25°C. Close the bottle and allow to stand for 30 minutes before use. Ensure contents are completely dissolved by swirling gently. Avoid formation of foam. Do not shake.
2. Refer to the Control section of the individual analyser application.
3. Refrigerate any unused material. Prior to reuse, mix contents thoroughly.

## MATERIALS PROVIDED
Human Assayed Multi-sera - Level 2 20 x 5 ml / 5 x 5 ml

## MATERIALS REQUIRED BUT NOT PROVIDED

Volumetric pipette

## ASSIGNED VALUES

Each batch of assayed human serum is submitted to reference laboratories for assignment against international Reference Standards. Where international Reference Standards are unavailable, Reference Methods are used. Values are also collected from approx. 3000 laboratories worldwide and using a unique statistical analysis, a value is assigned.

With each batch, a control range is provided for individual parameters and each parameter method. The control range is equivalent to the assigned mean ±2S.D. This results in an assayed serum with extremely accurate values, which may be confidently used by laboratories to ensure the accuracy of their methods.

If an instrument specific value is not available, refer to the Mean of all Instruments section. If necessary, contact Randox Laboratories - Technical Services, Northern Ireland, tel: +44 (0) 28 9445 1070 or email Technical.Services@randox.com

## NOTES

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(1) Applies only in Germany. Ranges established according to the Guidelines of the Federal Chamber of Physicians in Germany.
(2) Values established by reference laboratories officially recognised by the Federal Chamber of Physicians in Germany.
(3) DGKC: German Society for Clinical Chemistry.
(4) IFCC: International Federation of Clinical Chemistry.
(5) SCE: Scandinavian Committee on Enzymes.

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## ABBOTT AEROSET®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 39.4 | 33.5 | 45.3 | 2.95 | 5.90 | Bromocresol Green |
| | g/dl | 3.94 | 3.35 | 4.53 | 0.30 | 0.59 | |
| ALT (GPT) | U/l | 36 | 29 | 43 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| AST (GOT) | U/l | 33 | 27 | 39 | 3.00 | 6.00 | Tris buffer without P5P 37°C |
| Bilirubin Direct | µmol/l | 18.0 | 14.2 | 21.8 | 1.90 | 3.80 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.05 | 0.831 | 1.27 | 0.11 | 0.22 | |
| Bilirubin Total | µmol/l | 27.8 | 22.0 | 33.6 | 2.90 | 5.80 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.63 | 1.29 | 1.97 | 0.17 | 0.34 | |
| | µmol/l | 28.7 | 22.7 | 34.7 | 3.00 | 6.00 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.68 | 1.33 | 2.03 | 0.18 | 0.35 | |
| Calcium | mmol/l | 2.28 | 2.06 | 2.50 | 0.11 | 0.22 | Cresolphthalein complexone |
| | mg/dl | 9.14 | 8.26 | 10.0 | 0.44 | 0.88 | |
| | mmol/l | 2.30 | 2.07 | 2.53 | 0.12 | 0.23 | Arsenazo III |
| | mg/dl | 9.22 | 8.30 | 10.1 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 4.06 | 3.53 | 4.59 | 0.27 | 0.53 | Cholesterol Oxidase |
| | mg/dl | 157 | 136 | 178 | 10.50 | 21.00 | |
| Chloride | mmol/l | 97.8 | 90.0 | 106 | 3.90 | 7.80 | ISE direct |
| Creatinine | µmol/l | 123 | 98.0 | 148 | 12.50 | 25.00 | Alkaline picrate no deproteinization |
| | mg/dl | 1.39 | 1.11 | 1.67 | 0.14 | 0.28 | |
| Glucose | mmol/l | 6.24 | 5.31 | 7.17 | 0.47 | 0.93 | Hexokinase |
| | mg/dl | 112 | 95.7 | 128 | 8.15 | 16.30 | |



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**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Iron | µmol/l | 20.1 | 16.5 | 23.7 | 1.80 | 3.60 | Colorimetric without ppt. |
| | µg/dl | 112 | 92.2 | 132 | 9.90 | 19.80 | |
| LD (LDH) | U/l | 210 | 179 | 241 | 15.50 | 31.00 | L->P IFCC 37°C |
| Phosphate Inorganic | mmol/l | 1.42 | 1.20 | 1.64 | 0.11 | 0.22 | Phosphomolybdate UV |
| | mg/dl | 4.40 | 3.72 | 5.08 | 0.34 | 0.68 | |
| Potassium | mmol/l | 3.95 | 3.63 | 4.27 | 0.16 | 0.32 | ISE method - direct |
| Protein Total | g/l | 59.8 | 47.8 | 71.8 | 6.00 | 12.00 | Biuret reaction end point |
| | g/dl | 5.98 | 4.78 | 7.18 | 0.60 | 1.20 | |
| Sodium | mmol/l | 139 | 132 | 146 | 3.50 | 7.00 | ISE method - direct |
| Triglycerides | mmol/l | 1.07 | 0.90 | 1.24 | 0.08 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 94.7 | 79.9 | 110 | 7.40 | 14.80 | |
| Uric Acid (Urate) | mmol/l | 0.35 | 0.31 | 0.40 | 0.02 | 0.05 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.91 | 5.16 | 6.66 | 0.38 | 0.75 | |
| | mmol/l | 0.36 | 0.32 | 0.41 | 0.02 | 0.05 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 6.08 | 5.29 | 6.87 | 0.40 | 0.79 | |
| Urea | mmol/l | 7.36 | 6.25 | 8.47 | 0.56 | 1.11 | Urease kinetic |
| | mg/dl | 44.2 | 37.6 | 50.8 | 3.30 | 6.60 | |
| | mmol/l | 7.55 | 6.42 | 8.68 | 0.57 | 1.13 | Urease hypochlorite |
| | mg/dl | 45.4 | 38.6 | 52.2 | 3.40 | 6.80 | |
| | mmol/l | 7.36 | 6.26 | 8.46 | 0.55 | 1.10 | BUN |
| | mg/dl | 20.7 | 17.6 | 23.8 | 1.55 | 3.10 | |



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## Abbott Architect c/ci Systems®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 39.6 | 33.7 | 45.5 | 2.95 | 5.90 | Bromocresol Green |
| | g/dl | 3.96 | 3.37 | 4.55 | 0.30 | 0.59 | |
| | g/l | 40.3 | 34.2 | 46.4 | 3.05 | 6.10 | Bromocresol Purple |
| | g/dl | 4.03 | 3.42 | 4.64 | 0.31 | 0.61 | |
| Alkaline Phosphatase | U/l | 117 | 99 | 135 | 9.00 | 18.00 | AMP optimised to IFCC 37°C |
| | U/l | 116 | 98 | 134 | 9.00 | 18.00 | AMP optimised to NVKC/SFBC 37°C |
| | U/l | 116 | 98 | 134 | 9.00 | 18.00 | AMP non-optimised 37°C |
| ALT (GPT) | U/l | 35 | 28 | 42 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| Amylase Pancreatic | U/l | 67 | 57 | 77 | 5.00 | 10.00 | Immunoinhibition EPS substrate 37°C |
| Amylase Total | U/l | 96 | 82 | 110 | 7.00 | 14.00 | Randox liquid stable pNPG7 37°C |
| AST (GOT) | U/l | 35 | 28 | 42 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| Bile Acids | µmol/l | 26.0 | 20.8 | 31.2 | 2.60 | 5.20 | Enzymatic Colorimetric |
| Bicarbonate | mmol/l | 12.8 | 10.2 | 15.4 | 1.30 | 2.60 | Enzymatic |
| Bilirubin Direct | µmol/l | 20.2 | 16.0 | 24.4 | 2.10 | 4.20 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.18 | 0.936 | 1.42 | 0.12 | 0.24 | |
| Bilirubin Total | µmol/l | 27.6 | 21.8 | 33.4 | 2.90 | 5.80 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.61 | 1.28 | 1.94 | 0.17 | 0.33 | |
| | µmol/l | 27.7 | 21.9 | 33.5 | 2.90 | 5.80 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.62 | 1.28 | 1.96 | 0.17 | 0.34 | |
| | µmol/l | 28.8 | 22.7 | 34.9 | 3.05 | 6.10 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.68 | 1.33 | 2.03 | 0.18 | 0.35 | |



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## Abbott Architect c/ci Systems®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Bilirubin Total | µmol/l | 28.4 | 22.4 | 34.4 | 3.00 | 6.00 | Diazonium ion |
| | mg/dl | 1.66 | 1.31 | 2.01 | 0.18 | 0.35 | |
| Calcium | mmol/l | 2.27 | 2.04 | 2.50 | 0.12 | 0.23 | Arsenazo III |
| | mg/dl | 9.10 | 8.18 | 10.0 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 4.03 | 3.50 | 4.56 | 0.27 | 0.53 | Cholesterol Oxidase |
| | mg/dl | 156 | 135 | 177 | 10.50 | 21.00 | |
| Chloride | mmol/l | 97.3 | 89.5 | 105 | 3.90 | 7.80 | ISE indirect |
| CK Total | U/l | 182 | 149 | 215 | 16.50 | 33.00 | CK-NAC (IFCC) 37°C |
| Creatinine | µmol/l | 125 | 100 | 150 | 12.50 | 25.00 | Alkaline picrate no deproteinization |
| | mg/dl | 1.41 | 1.13 | 1.69 | 0.14 | 0.28 | |
| | µmol/l | 127 | 102 | 152 | 12.50 | 25.00 | Randox Enzymatic UV method |
| | mg/dl | 1.44 | 1.15 | 1.73 | 0.15 | 0.29 | |
| | µmol/l | 126 | 101 | 151 | 12.50 | 25.00 | Jaffe rate blanked |
| | mg/dl | 1.42 | 1.14 | 1.70 | 0.14 | 0.28 | |
| | µmol/l | 125 | 100 | 150 | 12.50 | 25.00 | IDMS traceable |
| | mg/dl | 1.41 | 1.13 | 1.69 | 0.14 | 0.28 | |
| Free T4 | pmol/l | 18.3 | 13.7 | 22.9 | 2.30 | 4.60 | Abbott Architect |
| | ng/dl | 1.43 | 1.07 | 1.79 | 0.18 | 0.36 | |
| | pg/ml | 14.3 | 10.7 | 17.9 | 1.80 | 3.60 | Abbott Architect |
| gamma-GT | U/l | 55 | 47 | 63 | 4.00 | 8.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 54 | 46 | 62 | 4.00 | 8.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 54 | 46 | 62 | 4.00 | 8.00 | DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C |
| Glucose | mmol/l | 6.09 | 5.18 | 7.00 | 0.46 | 0.91 | Hexokinase |
| | mg/dl | 110 | 93.3 | 127 | 8.35 | 16.70 | |
| HDL - Cholesterol | mmol/l | 1.32 | 1.12 | 1.52 | 0.10 | 0.20 | Direct HDL PPD |
| | mg/dl | 51.0 | 43.2 | 58.8 | 3.90 | 7.80 | |



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## Abbott Architect c/ci Systems®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| Analyte | unit | Target | Range low | Range high | 1SD | 2SD | methods |
|---|---|---|---|---|---|---|---|
| HDL - Cholesterol | mmol/l | 1.32 | 1.12 | 1.52 | 0.10 | 0.20 | Direct Clearance Method |
| | mg/dl | 51.0 | 43.2 | 58.8 | 3.90 | 7.80 | |
| | mmol/l | 1.33 | 1.13 | 1.53 | 0.10 | 0.20 | HDL - Ultra |
| | mg/dl | 51.3 | 43.6 | 59.0 | 3.85 | 7.70 | |
| Iron | µmol/l | 20.9 | 17.1 | 24.7 | 1.90 | 3.80 | Colorimetric with ppt. |
| | µg/dl | 117 | 95.6 | 138 | 10.70 | 21.40 | |
| | µmol/l | 20.4 | 16.7 | 24.1 | 1.85 | 3.70 | Colorimetric without ppt. |
| | µg/dl | 114 | 93.4 | 135 | 10.30 | 20.60 | |
| Lactate | mmol/l | 1.53 | 1.26 | 1.80 | 0.14 | 0.27 | Colorimetric Lactate Oxidase |
| | mg/dl | 13.8 | 11.4 | 16.2 | 1.20 | 2.40 | |
| LD (LDH) | U/l | 219 | 186 | 252 | 16.50 | 33.00 | L->P 37°C |
| | U/l | 216 | 184 | 248 | 16.00 | 32.00 | L->P IFCC 37°C |
| Lipase | U/l | 38 | 30 | 46 | 4.00 | 8.00 | Other Colorimetric 37°C |
| Lithium | mmol/l | 1.08 | 0.95 | 1.21 | 0.07 | 0.13 | Spectrophotometric |
| | mg/dl | 0.750 | 0.659 | 0.841 | 0.05 | 0.09 | |
| Magnesium | mmol/l | 0.89 | 0.79 | 1.00 | 0.05 | 0.11 | Arsenazo III |
| | mg/dl | 2.17 | 1.91 | 2.43 | 0.13 | 0.26 | |
| | mmol/l | 0.88 | 0.77 | 0.99 | 0.05 | 0.11 | Enzymatic |
| | mg/dl | 2.14 | 1.88 | 2.40 | 0.13 | 0.26 | |
| Osmolality | mOsm/kg | 290 | 232 | 348 | 29.00 | 58.00 | Calculated |
| Phosphate Inorganic | mmol/l | 1.40 | 1.19 | 1.61 | 0.11 | 0.21 | Phosphomolybdate enzymatic |
| | mg/dl | 4.34 | 3.69 | 4.99 | 0.33 | 0.65 | |
| | mmol/l | 1.39 | 1.18 | 1.60 | 0.11 | 0.21 | Phosphomolybdate UV |
| | mg/dl | 4.31 | 3.66 | 4.96 | 0.33 | 0.65 | |



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**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Potassium | mmol/l | 3.97 | 3.65 | 4.29 | 0.16 | 0.32 | ISE method - indirect |
| Protein Total | g/l | 58.9 | 47.2 | 70.6 | 5.85 | 11.70 | Biuret reaction end point |
| | g/dl | 5.89 | 4.72 | 7.06 | 0.59 | 1.17 | |
| | g/l | 58.3 | 46.7 | 69.9 | 5.80 | 11.60 | Biuret reaction kinetic |
| | g/dl | 5.83 | 4.67 | 6.99 | 0.58 | 1.16 | |
| PSA Total | ng/ml = | 14.3 | 10.7 | 17.9 | 1.80 | 3.60 | Abbott Architect |
| Sodium | mmol/l | 139 | 132 | 146 | 3.50 | 7.00 | ISE method - indirect |
| Thyroid Stimulating Hormone | µU/ml = | 1.06 | 0.85 | 1.27 | 0.11 | 0.21 | Abbott Architect |
| TIBC | µmol/l | 44.6 | 35.2 | 54.0 | 4.70 | 9.40 | FE+UIBC(saturation with iron) |
| | µg/dl | 249 | 197 | 301 | 26.00 | 52.00 | |
| Triglycerides | mmol/l | 1.02 | 0.86 | 1.18 | 0.08 | 0.16 | Lipase/GPO-PAP no correction |
| | mg/dl | 90.3 | 76.2 | 104 | 7.05 | 14.10 | |
| | mmol/l | 1.03 | 0.87 | 1.19 | 0.08 | 0.16 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 91.2 | 76.6 | 106 | 7.30 | 14.60 | |
| | mmol/l | 1.04 | 0.87 | 1.21 | 0.09 | 0.17 | L/G Kinase EP. no correction |
| | mg/dl | 92.0 | 77.0 | 107 | 7.50 | 15.00 | |
| | mmol/l | 1.04 | 0.87 | 1.21 | 0.09 | 0.17 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 92.0 | 77.0 | 107 | 7.50 | 15.00 | |
| | mmol/l | 1.04 | 0.88 | 1.20 | 0.08 | 0.16 | Agappe - GPO - TOPS |
| | mg/dl | 92.0 | 77.6 | 106 | 7.20 | 14.40 | |
| Uric Acid (Urate) | mmol/l | 0.35 | 0.31 | 0.40 | 0.02 | 0.05 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.88 | 5.12 | 6.64 | 0.38 | 0.76 | |
| | mmol/l | 0.35 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.85 | 5.07 | 6.63 | 0.39 | 0.78 | |
| | mmol/l | 0.35 | 0.30 | 0.40 | 0.02 | 0.05 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.86 | 5.09 | 6.63 | 0.39 | 0.77 | |



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**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Uric Acid (Urate) | mmol/l | 0.35 | 0.31 | 0.40 | 0.02 | 0.05 | Agappe - Uricase - PAP |
| | mg/dl | 5.91 | 5.14 | 6.68 | 0.39 | 0.77 | |
| Urea | mmol/l | 7.38 | 6.27 | 8.49 | 0.56 | 1.11 | Urease end point |
| | mg/dl | 44.4 | 37.7 | 51.1 | 3.35 | 6.70 | |
| | mmol/l | 7.26 | 6.17 | 8.35 | 0.55 | 1.09 | Urease kinetic |
| | mg/dl | 43.6 | 37.1 | 50.1 | 3.25 | 6.50 | |
| | mmol/l | 7.26 | 6.17 | 8.35 | 0.55 | 1.09 | BUN |
| | mg/dl | 20.4 | 17.3 | 23.5 | 1.55 | 3.10 | |



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## ABX Pentra 400®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 39.9 | 33.9 | 45.9 | 3.00 | 6.00 | Bromocresol Green |
| | g/dl | 3.99 | 3.39 | 4.59 | 0.30 | 0.60 | |
| Alkaline Phosphatase | U/l | 120 | 102 | 138 | 9.00 | 18.00 | AMP optimised to IFCC 37°C |
| ALT (GPT) | U/l | 41 | 33 | 49 | 4.00 | 8.00 | Tris buffer without P5P 37°C |
| AST (GOT) | U/l | 39 | 31 | 47 | 4.00 | 8.00 | Tris buffer without P5P 37°C |
| Bilirubin Direct | µmol/l | 22.6 | 17.9 | 27.3 | 2.35 | 4.70 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.32 | 1.05 | 1.59 | 0.14 | 0.27 | |
| Calcium | mmol/l | 2.18 | 1.96 | 2.40 | 0.11 | 0.22 | Cresolphthalein complexone |
| | mg/dl | 8.74 | 7.86 | 9.62 | 0.44 | 0.88 | |
| Cholesterol | mmol/l | 3.95 | 3.43 | 4.47 | 0.26 | 0.52 | Cholesterol Oxidase |
| | mg/dl | 152 | 132 | 172 | 10.00 | 20.00 | |
| Chloride | mmol/l | 95.1 | 87.4 | 103 | 3.85 | 7.70 | ISE direct |
| CK Total | U/l | 198 | 162 | 234 | 18.00 | 36.00 | CK-NAC (IFCC) 37°C |
| Glucose | mmol/l | 6.12 | 5.20 | 7.04 | 0.46 | 0.92 | Glucose oxidase |
| | mg/dl | 110 | 93.7 | 126 | 8.15 | 16.30 | |
| Magnesium | mmol/l | 0.89 | 0.78 | 0.99 | 0.05 | 0.11 | Xylidyl Blue |
| | mg/dl | 2.15 | 1.90 | 2.40 | 0.13 | 0.25 | |
| Potassium | mmol/l | 4.00 | 3.68 | 4.32 | 0.16 | 0.32 | ISE method - direct |
| Protein Total | g/l | 60.3 | 48.3 | 72.3 | 6.00 | 12.00 | Biuret reaction end point |
| | g/dl | 6.03 | 4.83 | 7.23 | 0.60 | 1.20 | |
| Sodium | mmol/l | 139 | 132 | 146 | 3.50 | 7.00 | ISE method - direct |



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RANDOX

## ABX Pentra 400®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Triglycerides | mmol/l | 1.04 | 0.87 | 1.21 | 0.09 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 92.0 | 77.0 | 107 | 7.50 | 15.00 | |



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## Alfa Wassermann Alfa 600/Analyticon Biolyzer 600 ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 41.8 | 35.5 | 48.1 | 3.15 | 6.30 | Bromocresol Green |
| | g/dl | 4.18 | 3.55 | 4.81 | 0.32 | 0.63 | |
| ALT (GPT) | U/l | 36 | 29 | 43 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 27 | 21 | 33 | 3.00 | 6.00 | Tris buffer without P5P 30°C |
| | U/l | 20 | 16 | 24 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| AST (GOT) | U/l | 37 | 29 | 45 | 4.00 | 8.00 | Tris buffer without P5P 37°C |
| | U/l | 25 | 20 | 30 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 18 | 14 | 22 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| Calcium | mmol/l | 2.28 | 2.05 | 2.51 | 0.12 | 0.23 | Arsenazo III |
| | mg/dl | 9.14 | 8.22 | 10.1 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 3.97 | 3.45 | 4.49 | 0.26 | 0.52 | Cholesterol Oxidase |
| | mg/dl | 153 | 133 | 173 | 10.00 | 20.00 | |
| Creatinine | µmol/l | 124 | 99.2 | 149 | 12.40 | 24.80 | Alkaline picrate no deproteinization |
| | mg/dl | 1.40 | 1.12 | 1.68 | 0.14 | 0.28 | |
| Glucose | mmol/l | 6.57 | 5.58 | 7.56 | 0.50 | 0.99 | Hexokinase |
| | mg/dl | 118 | 101 | 135 | 8.50 | 17.00 | |
| Protein Total | g/l | 61.2 | 48.9 | 73.5 | 6.15 | 12.30 | Biuret reaction end point |
| | g/dl | 6.12 | 4.89 | 7.35 | 0.62 | 1.23 | |
| Triglycerides | mmol/l | 1.08 | 0.91 | 1.25 | 0.09 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 95.6 | 80.3 | 111 | 7.65 | 15.30 | |
| Uric Acid (Urate) | mmol/l | 0.36 | 0.31 | 0.40 | 0.02 | 0.05 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.96 | 5.19 | 6.73 | 0.39 | 0.77 | |



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## Alfa Wassermann Alfa 600/Analyticon Biolyzer 600 ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| Analyte | unit | Target | Range low | Range high | 1SD | 2SD | methods |
|---|---|---|---|---|---|---|---|
| Urea | mmol/l | 7.27 | 6.18 | 8.36 | 0.55 | 1.09 | Urease kinetic |
| | mg/dl | 43.7 | 37.1 | 50.3 | 3.30 | 6.60 | |
| | mmol/l | 7.27 | 6.18 | 8.36 | 0.55 | 1.09 | BUN |
| | mg/dl | 20.4 | 17.3 | 23.5 | 1.55 | 3.10 | |



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## Beckman Coulter AU Series®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 39.4 | 33.5 | 45.3 | 2.95 | 5.90 | Bromocresol Green |
| | g/dl | 3.94 | 3.35 | 4.53 | 0.30 | 0.59 | |
| | g/l | 43.0 | 36.5 | 49.5 | 3.25 | 6.50 | Bromocresol Purple |
| | g/dl | 4.30 | 3.65 | 4.95 | 0.33 | 0.65 | |
| Alkaline Phosphatase | U/l | 147 | 125 | 169 | 11.00 | 22.00 | p-Nitrophenylphosphate AMP 37°C |
| | U/l | 207 | 176 | 238 | 15.50 | 31.00 | Diethanolamine buffer DEA 37°C |
| | U/l | 140 | 119 | 161 | 10.50 | 21.00 | AMP optimised to IFCC 37°C |
| ALT (GPT) | U/l | 39 | 31 | 47 | 4.00 | 8.00 | Tris buffer without P5P 37°C |
| Amylase Total | U/l | 93 | 79 | 107 | 7.00 | 14.00 | pNP Maltotrioside substrates 37°C |
| | U/l | 93 | 79 | 107 | 7.00 | 14.00 | Biotrol - blocked pNPG7 37°C |
| | U/l | 89 | 76 | 102 | 6.50 | 13.00 | Roche liquid stable pNPG7 37°C |
| | U/l | 92 | 78 | 106 | 7.00 | 14.00 | Beckman Coulter - blocked pNPG7 37°C |
| AST (GOT) | U/l | 38 | 30 | 46 | 4.00 | 8.00 | Tris buffer without P5P 37°C |
| Bicarbonate | mmol/l | 13.9 | 11.0 | 16.8 | 1.45 | 2.90 | Enzymatic |
| Bilirubin Direct | µmol/l | 21.8 | 17.2 | 26.4 | 2.30 | 4.60 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.28 | 1.01 | 1.55 | 0.14 | 0.27 | |
| | µmol/l | 21.5 | 17.0 | 26.0 | 2.25 | 4.50 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.26 | 0.995 | 1.53 | 0.13 | 0.27 | |
| | µmol/l | 21.8 | 17.2 | 26.4 | 2.30 | 4.60 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.28 | 1.01 | 1.55 | 0.14 | 0.27 | |
| Bilirubin Total | µmol/l | 26.7 | 21.1 | 32.3 | 2.80 | 5.60 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.56 | 1.23 | 1.89 | 0.17 | 0.33 | |



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## Beckman Coulter AU Series®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Bilirubin Total | µmol/l | 31.8 | 25.1 | 38.5 | 3.35 | 6.70 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.86 | 1.47 | 2.25 | 0.20 | 0.39 | |
| | µmol/l | 31.5 | 24.9 | 38.1 | 3.30 | 6.60 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.84 | 1.46 | 2.22 | 0.19 | 0.38 | |
| | µmol/l | 31.7 | 25.0 | 38.4 | 3.35 | 6.70 | Oxidation to Biliverdin |
| | mg/dl | 1.85 | 1.46 | 2.24 | 0.20 | 0.39 | |
| Calcium | mmol/l | 2.28 | 2.05 | 2.51 | 0.12 | 0.23 | Cresolphthalein complexone |
| | mg/dl | 9.14 | 8.22 | 10.1 | 0.46 | 0.92 | |
| | mmol/l | 2.29 | 2.06 | 2.52 | 0.12 | 0.23 | Arsenazo III |
| | mg/dl | 9.18 | 8.26 | 10.1 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 4.04 | 3.51 | 4.57 | 0.27 | 0.53 | Cholesterol Oxidase |
| | mg/dl | 156 | 135 | 177 | 10.50 | 21.00 | |
| Chloride | mmol/l | 95.3 | 87.7 | 103 | 3.80 | 7.60 | ISE indirect |
| Cholinesterase | U/l | 5731 | 4585 | 6877 | 573.00 | 1146.00 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 193 | 158 | 228 | 17.50 | 35.00 | CK-NAC serum start (DGKC) 37°C |
| | U/l | 190 | 156 | 224 | 17.00 | 34.00 | CK-NAC substrate start (DGKC) 37°C |
| | U/l | 192 | 158 | 226 | 17.00 | 34.00 | CK-NAC (IFCC) 37°C |
| Creatinine | µmol/l | 127 | 101 | 153 | 13.00 | 26.00 | Alkaline picrate no deproteinization |
| | mg/dl | 1.44 | 1.14 | 1.74 | 0.15 | 0.30 | |
| | µmol/l | 125 | 100 | 150 | 12.50 | 25.00 | Randox Enzymatic UV method |
| | mg/dl | 1.41 | 1.13 | 1.69 | 0.14 | 0.28 | |
| | µmol/l | 126 | 100 | 152 | 13.00 | 26.00 | Creatinine PAP method |
| | mg/dl | 1.42 | 1.13 | 1.71 | 0.15 | 0.29 | |
| | µmol/l | 127 | 101 | 153 | 13.00 | 26.00 | Roche Creatinine Plus |
| | mg/dl | 1.44 | 1.14 | 1.74 | 0.15 | 0.30 | |



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## Beckman Coulter AU Series®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Creatinine | µmol/l | 127 | 102 | 152 | 12.50 | 25.00 | Jaffe rate blanked |
| | mg/dl | 1.44 | 1.15 | 1.73 | 0.15 | 0.29 | |
| | µmol/l | 123 | 98.3 | 148 | 12.35 | 24.70 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.39 | 1.11 | 1.67 | 0.14 | 0.28 | |
| | µmol/l | 117 | 93.5 | 141 | 11.75 | 23.50 | Jaffe rate blanked compensated (-18 µmol/l) |
| | mg/dl | 1.32 | 1.06 | 1.58 | 0.13 | 0.26 | |
| | µmol/l | 116 | 92.7 | 139 | 11.65 | 23.30 | IDMS traceable |
| | mg/dl | 1.31 | 1.05 | 1.57 | 0.13 | 0.26 | |
| D-3-Hydroxybutyrate | mmol/l | 0.30 | 0.25 | 0.34 | 0.02 | 0.04 | Tris buffer 100mmol pH 8.5 |
| gamma-GT | U/l | 58 | 49 | 67 | 4.50 | 9.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 57 | 48 | 66 | 4.50 | 9.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| GLDH | U/l | 19 | 15 | 23 | 2.00 | 4.00 | Triethanolamine buffer 50 mmol 37°C |
| Glucose | mmol/l | 6.18 | 5.25 | 7.11 | 0.47 | 0.93 | Hexokinase |
| | mg/dl | 111 | 94.6 | 127 | 8.20 | 16.40 | |
| | mmol/l | 6.30 | 5.35 | 7.25 | 0.48 | 0.95 | Glucose oxidase |
| | mg/dl | 114 | 96.4 | 132 | 8.80 | 17.60 | |
| HDL - Cholesterol | mmol/l | 1.31 | 1.11 | 1.51 | 0.10 | 0.20 | Direct HDL PPD |
| | mg/dl | 50.6 | 42.8 | 58.4 | 3.90 | 7.80 | |
| | mmol/l | 1.24 | 1.05 | 1.43 | 0.10 | 0.19 | Direct HDL Immunoseparation |
| | mg/dl | 47.9 | 40.5 | 55.3 | 3.70 | 7.40 | |
| | mmol/l | 1.20 | 1.02 | 1.38 | 0.09 | 0.18 | Direct HDL PEGME |
| | mg/dl | 46.3 | 39.4 | 53.2 | 3.45 | 6.90 | |
| | mmol/l | 1.32 | 1.13 | 1.51 | 0.10 | 0.19 | Direct Clearance Method |
| | mg/dl | 51.0 | 43.6 | 58.4 | 3.70 | 7.40 | |



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## Beckman Coulter AU Series®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| HDL - Cholesterol | mmol/l | 1.18 | 1.01 | 1.35 | 0.09 | 0.17 | Direct HDL Roche 3rd generation |
| | mg/dl | 45.5 | 39.0 | 52.0 | 3.25 | 6.50 | |
| Iron | µmol/l | 19.8 | 16.2 | 23.4 | 1.80 | 3.60 | Colorimetric with ppt. |
| | µg/dl | 111 | 90.6 | 131 | 10.20 | 20.40 | |
| | µmol/l | 20.0 | 16.4 | 23.6 | 1.80 | 3.60 | Colorimetric without ppt. |
| | µg/dl | 112 | 91.7 | 132 | 10.15 | 20.30 | |
| Lactate | mmol/l | 1.50 | 1.23 | 1.77 | 0.14 | 0.27 | Colorimetric Lactate Oxidase |
| | mg/dl | 13.5 | 11.1 | 15.9 | 1.20 | 2.40 | |
| LD (LDH) | U/l | 218 | 185 | 251 | 16.50 | 33.00 | L->P 37°C |
| | U/l | 477 | 406 | 548 | 35.50 | 71.00 | P->L Scandinavian & Dutch 37°C |
| | U/l | 425 | 362 | 488 | 31.50 | 63.00 | P->L German methods 37°C |
| | U/l | 216 | 183 | 249 | 16.50 | 33.00 | L->P IFCC 37°C |
| Lipase | U/l | 35 | 28 | 42 | 3.50 | 7.00 | Other Colorimetric 37°C |
| | U/l | 36 | 29 | 43 | 3.50 | 7.00 | Roche Colorimetric 37°C |
| | U/l | 42 | 34 | 50 | 4.00 | 8.00 | Randox Colorimetric 37°C |
| Lithium | mmol/l | 1.03 | 0.91 | 1.15 | 0.06 | 0.12 | Spectrophotometric |
| | mg/dl | 0.715 | 0.631 | 0.799 | 0.04 | 0.08 | |
| Magnesium | mmol/l | 0.91 | 0.80 | 1.02 | 0.06 | 0.11 | Xylidyl Blue |
| | mg/dl | 2.22 | 1.95 | 2.49 | 0.14 | 0.27 | |
| Osmolality | mOsm/kg | 287 | 230 | 344 | 28.50 | 57.00 | Calculated |
| Phosphate Inorganic | mmol/l | 1.40 | 1.19 | 1.61 | 0.11 | 0.21 | Phosphomolybdate enzymatic |
| | mg/dl | 4.34 | 3.69 | 4.99 | 0.33 | 0.65 | |
| | mmol/l | 1.39 | 1.18 | 1.60 | 0.11 | 0.21 | Phosphomolybdate UV |
| | mg/dl | 4.31 | 3.66 | 4.96 | 0.33 | 0.65 | |
| Potassium | mmol/l | 3.94 | 3.62 | 4.26 | 0.16 | 0.32 | ISE method - indirect |



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## Beckman Coulter AU Series®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Protein Total | g/l | 57.1 | 45.7 | 68.5 | 5.70 | 11.40 | Biuret reaction end point |
| | g/dl | 5.71 | 4.57 | 6.85 | 0.57 | 1.14 | |
| Sodium | mmol/l | 138 | 131 | 145 | 3.50 | 7.00 | ISE method - indirect |
| TIBC | µmol/l | 45.7 | 36.1 | 55.3 | 4.80 | 9.60 | FE+UIBC(saturation with iron) |
| | µg/dl | 255 | 202 | 308 | 26.50 | 53.00 | |
| Triglycerides | mmol/l | 1.08 | 0.91 | 1.25 | 0.09 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 95.6 | 80.4 | 111 | 7.60 | 15.20 | |
| | mmol/l | 1.05 | 0.89 | 1.21 | 0.08 | 0.16 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 92.9 | 78.4 | 107 | 7.25 | 14.50 | |
| | mmol/l | 1.09 | 0.91 | 1.27 | 0.09 | 0.18 | L/G Kinase EP. no correction |
| | mg/dl | 96.5 | 80.9 | 112 | 7.80 | 15.60 | |
| Uric Acid (Urate) | mmol/l | 0.35 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.81 | 5.06 | 6.56 | 0.38 | 0.75 | |
| | mmol/l | 0.35 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.83 | 5.07 | 6.59 | 0.38 | 0.76 | |
| | mmol/l | 0.34 | 0.30 | 0.38 | 0.02 | 0.04 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.70 | 4.96 | 6.44 | 0.37 | 0.74 | |
| Urea | mmol/l | 7.62 | 6.48 | 8.76 | 0.57 | 1.14 | Urease end point |
| | mg/dl | 45.8 | 38.9 | 52.7 | 3.45 | 6.90 | |
| | mmol/l | 7.42 | 6.31 | 8.53 | 0.56 | 1.11 | Urease kinetic |
| | mg/dl | 44.6 | 37.9 | 51.3 | 3.35 | 6.70 | |
| | mmol/l | 7.42 | 6.31 | 8.53 | 0.56 | 1.11 | BUN |
| | mg/dl | 20.8 | 17.7 | 23.9 | 1.55 | 3.10 | |



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## Beckman CX4/5/7/9/LX20®/DxC600/800®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 42.0 | 35.7 | 48.3 | 3.15 | 6.30 | Bromocresol Green |
| | g/dl | 4.20 | 3.57 | 4.83 | 0.32 | 0.63 | |
| | g/l | 42.1 | 35.7 | 48.5 | 3.20 | 6.40 | Bromocresol Purple |
| | g/dl | 4.21 | 3.57 | 4.85 | 0.32 | 0.64 | |
| Alkaline Phosphatase | U/l | 127 | 108 | 146 | 9.50 | 19.00 | p-Nitrophenylphosphate AMP 37°C |
| | U/l | 122 | 104 | 140 | 9.00 | 18.00 | AMP optimised to IFCC 37°C |
| ALT (GPT) | U/l | 36 | 29 | 43 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 36 | 28 | 44 | 4.00 | 8.00 | Tris buffer SCE 37°C |
| Amylase Pancreatic | U/l | 60 | 51 | 69 | 4.50 | 9.00 | Immunoinhibition EPS substrate 37°C |
| | U/l | 58 | 49 | 67 | 4.50 | 9.00 | Beckman Synchron/CX/LXi/DxC 37°C |
| Amylase Total | U/l | 92 | 78 | 106 | 7.00 | 14.00 | Beckman maltotetraose 37°C |
| | U/l | 96 | 82 | 110 | 7.00 | 14.00 | Beckman Synchron AMY7 37°C |
| AST (GOT) | U/l | 35 | 28 | 42 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 35 | 28 | 42 | 3.50 | 7.00 | Tris buffer SCE 37°C |
| Bicarbonate | mmol/l | 13.8 | 10.9 | 16.7 | 1.45 | 2.90 | Differential rate pH change |
| | mmol/l | 13.9 | 11.0 | 16.8 | 1.45 | 2.90 | Ion selective electrode |
| Bilirubin Direct | µmol/l | 15.1 | 12.0 | 18.2 | 1.55 | 3.10 | Diazo with Sulphanilic Acid |
| | mg/dl | 0.883 | 0.702 | 1.06 | 0.09 | 0.18 | |
| Bilirubin Total | µmol/l | 30.9 | 24.4 | 37.4 | 3.25 | 6.50 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.81 | 1.43 | 2.19 | 0.19 | 0.38 | |
| Calcium | mmol/l | 2.21 | 1.99 | 2.43 | 0.11 | 0.22 | Cresolphthalein complexone |
| | mg/dl | 8.86 | 7.98 | 9.74 | 0.44 | 0.88 | |



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## Beckman CX4/5/7/9/LX20®/DxC600/800®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Calcium | mmol/l | 2.23 | 2.00 | 2.46 | 0.12 | 0.23 | Ion selective electrode |
| | mg/dl | 8.94 | 8.02 | 9.86 | 0.46 | 0.92 | |
| | mmol/l | 2.29 | 2.06 | 2.52 | 0.12 | 0.23 | Arsenazo III |
| | mg/dl | 9.18 | 8.26 | 10.1 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 3.73 | 3.25 | 4.21 | 0.24 | 0.48 | Cholesterol Oxidase |
| | mg/dl | 144 | 125 | 163 | 9.50 | 19.00 | |
| Chloride | mmol/l | 96.7 | 89.0 | 104 | 3.85 | 7.70 | ISE indirect |
| Cholinesterase | U/l | 5648 | 4519 | 6777 | 564.50 | 1129.00 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 188 | 154 | 222 | 17.00 | 34.00 | CK-NAC (IFCC) 37°C |
| | U/l | 187 | 154 | 220 | 16.50 | 33.00 | Monothioglycerol 37°C |
| Creatinine | µmol/l | 122 | 97.3 | 147 | 12.35 | 24.70 | Alkaline picrate no deproteinization |
| | mg/dl | 1.38 | 1.10 | 1.66 | 0.14 | 0.28 | |
| | µmol/l | 120 | 96.0 | 144 | 12.00 | 24.00 | Randox Enzymatic UV method |
| | mg/dl | 1.36 | 1.08 | 1.64 | 0.14 | 0.28 | |
| | µmol/l | 123 | 98.6 | 147 | 12.20 | 24.40 | Jaffe rate blanked |
| | mg/dl | 1.39 | 1.11 | 1.67 | 0.14 | 0.28 | |
| | µmol/l | 120 | 96.0 | 144 | 12.00 | 24.00 | IDMS traceable |
| | mg/dl | 1.36 | 1.08 | 1.64 | 0.14 | 0.28 | |
| gamma-GT | U/l | 47 | 40 | 54 | 3.50 | 7.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 47 | 40 | 54 | 3.50 | 7.00 | Gamma glutamyl-4-nitroanilide 37°C |
| Glucose | mmol/l | 6.05 | 5.14 | 6.96 | 0.46 | 0.91 | Hexokinase |
| | mg/dl | 109 | 92.6 | 125 | 8.20 | 16.40 | |
| | mmol/l | 6.01 | 5.11 | 6.91 | 0.45 | 0.90 | Oxygen electrode |
| | mg/dl | 108 | 92.1 | 124 | 7.95 | 15.90 | |



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## Beckman CX4/5/7/9/LX20®/DxC600/800®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Glucose | mmol/l | 6.00 | 5.10 | 6.90 | 0.45 | 0.90 | Glucose oxidase |
| | mg/dl | 108 | 91.9 | 124 | 8.05 | 16.10 | |
| HDL - Cholesterol | mmol/l | 1.39 | 1.18 | 1.60 | 0.11 | 0.21 | Direct HDL PPD |
| | mg/dl | 53.7 | 45.5 | 61.9 | 4.10 | 8.20 | |
| Iron | µmol/l | 19.3 | 15.8 | 22.8 | 1.75 | 3.50 | Colorimetric without ppt. |
| | µg/dl | 108 | 88.3 | 128 | 9.85 | 19.70 | |
| Lactate | mmol/l | 1.56 | 1.28 | 1.84 | 0.14 | 0.28 | Colorimetric Lactate Oxidase |
| | mg/dl | 14.1 | 11.5 | 16.7 | 1.30 | 2.60 | |
| LD (LDH) | U/l | 181 | 154 | 208 | 13.50 | 27.00 | L->P 37°C |
| | U/l | 557 | 473 | 641 | 42.00 | 84.00 | Pyruvate 1.4 mM - Beckman LD-P 37°C |
| | U/l | 205 | 174 | 236 | 15.50 | 31.00 | L->P IFCC 37°C |
| Lipase | U/l | 34 | 28 | 40 | 3.00 | 6.00 | Other Colorimetric 37°C |
| Magnesium | mmol/l | 0.91 | 0.80 | 1.02 | 0.06 | 0.11 | Calmagite |
| | mg/dl | 2.22 | 1.95 | 2.49 | 0.14 | 0.27 | |
| Osmolality | mOsm/kg | 277 | 222 | 332 | 27.50 | 55.00 | Calculated |
| Phosphate Inorganic | mmol/l | 1.42 | 1.20 | 1.64 | 0.11 | 0.22 | Phosphomolybdate enzymatic |
| | mg/dl | 4.40 | 3.72 | 5.08 | 0.34 | 0.68 | |
| | mmol/l | 1.41 | 1.20 | 1.62 | 0.11 | 0.21 | Phosphomolybdate UV |
| | mg/dl | 4.37 | 3.72 | 5.02 | 0.33 | 0.65 | |
| Potassium | mmol/l | 3.89 | 3.57 | 4.21 | 0.16 | 0.32 | ISE method - indirect |
| Protein Total | g/l | 57.2 | 45.8 | 68.6 | 5.70 | 11.40 | Biuret reaction CX4/5/7 |
| | g/dl | 5.72 | 4.58 | 6.86 | 0.57 | 1.14 | |
| | g/l | 58.5 | 46.8 | 70.2 | 5.85 | 11.70 | Biuret reaction end point |
| | g/dl | 5.85 | 4.68 | 7.02 | 0.59 | 1.17 | |
| | g/l | 55.7 | 44.6 | 66.8 | 5.55 | 11.10 | Biuret reaction kinetic |
| | g/dl | 5.57 | 4.46 | 6.68 | 0.56 | 1.11 | |



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## Beckman CX4/5/7/9/LX20®/DxC600/800®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| Analyte | unit | Target | Range low | Range high | 1SD | 2SD | methods |
|---|---|---|---|---|---|---|---|
| Sodium | mmol/l | 138 | 131 | 145 | 3.50 | 7.00 | ISE method - indirect |
| TIBC | µmol/l | 43.2 | 34.1 | 52.3 | 4.55 | 9.10 | Removal of excess free iron |
| | µg/dl | 241 | 191 | 291 | 25.00 | 50.00 | |
| | µmol/l | 47.8 | 37.8 | 57.8 | 5.00 | 10.00 | FE+UIBC(saturation with iron) |
| | µg/dl | 267 | 211 | 323 | 28.00 | 56.00 | |
| Triglycerides | mmol/l | 1.10 | 0.93 | 1.27 | 0.09 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 97.4 | 82.0 | 113 | 7.70 | 15.40 | |
| | mmol/l | 1.12 | 0.94 | 1.30 | 0.09 | 0.18 | L/G Kinase EP. no correction |
| | mg/dl | 99.1 | 83.2 | 115 | 7.95 | 15.90 | |
| Uric Acid (Urate) | mmol/l | 0.33 | 0.28 | 0.37 | 0.02 | 0.04 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.49 | 4.77 | 6.21 | 0.36 | 0.72 | |
| Urea | mmol/l | 7.54 | 6.41 | 8.67 | 0.57 | 1.13 | Urease end point |
| | mg/dl | 45.3 | 38.5 | 52.1 | 3.40 | 6.80 | |
| | mmol/l | 7.51 | 6.38 | 8.64 | 0.57 | 1.13 | Urease kinetic |
| | mg/dl | 45.1 | 38.3 | 51.9 | 3.40 | 6.80 | |
| | mmol/l | 7.51 | 6.38 | 8.64 | 0.57 | 1.13 | BUN |
| | mg/dl | 21.1 | 17.9 | 24.3 | 1.60 | 3.20 | |



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## BIOSYSTEMS A15

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 37.7 | 32.0 | 43.4 | 2.85 | 5.70 | Bromocresol Green |
| | g/dl | 3.77 | 3.20 | 4.34 | 0.29 | 0.57 | |
| AST (GOT) | U/l | 40 | 32 | 48 | 4.00 | 8.00 | Tris buffer without P5P 37°C |
| | U/l | 27 | 22 | 32 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 19 | 15 | 23 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| Bilirubin Total | µmol/l | 35.1 | 27.7 | 42.5 | 3.70 | 7.40 | Diazo with Sulphanilic Acid |
| | mg/dl | 2.05 | 1.62 | 2.48 | 0.22 | 0.43 | |
| Cholesterol | mmol/l | 3.96 | 3.45 | 4.47 | 0.26 | 0.51 | Cholesterol Oxidase |
| | mg/dl | 153 | 133 | 173 | 10.00 | 20.00 | |
| Creatinine | µmol/l | 119 | 95.0 | 143 | 12.00 | 24.00 | Alkaline picrate no deproteinization |
| | mg/dl | 1.34 | 1.07 | 1.61 | 0.14 | 0.27 | |
| Glucose | mmol/l | 6.45 | 5.48 | 7.42 | 0.49 | 0.97 | Glucose oxidase |
| | mg/dl | 116 | 98.7 | 133 | 8.65 | 17.30 | |
| Protein Total | g/l | 59.3 | 47.4 | 71.2 | 5.95 | 11.90 | Biuret reaction end point |
| | g/dl | 5.93 | 4.74 | 7.12 | 0.60 | 1.19 | |
| Triglycerides | mmol/l | 1.03 | 0.86 | 1.20 | 0.08 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 91.2 | 76.2 | 106 | 7.50 | 15.00 | |
| Uric Acid (Urate) | mmol/l | 0.38 | 0.33 | 0.43 | 0.03 | 0.05 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 6.42 | 5.58 | 7.26 | 0.42 | 0.84 | |
| | mmol/l | 0.35 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.83 | 5.07 | 6.59 | 0.38 | 0.76 | |



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## BIOSYSTEMS A15

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Urea | mmol/l | 7.52 | 6.39 | 8.65 | 0.57 | 1.13 | Urease kinetic |
| | mg/dl | 45.2 | 38.4 | 52.0 | 3.40 | 6.80 | |
| | mmol/l | 7.52 | 6.39 | 8.65 | 0.57 | 1.13 | BUN |
| | mg/dl | 21.1 | 17.9 | 24.3 | 1.60 | 3.20 | |



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## BIOSYSTEMS A25

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 38.1 | 32.4 | 43.8 | 2.85 | 5.70 | Bromocresol Green |
| | g/dl | 3.81 | 3.24 | 4.38 | 0.29 | 0.57 | |
| Alkaline Phosphatase | U/l | 116 | 99 | 133 | 8.50 | 17.00 | AMP optimised to IFCC 37°C |
| | U/l | 90 | 77 | 103 | 6.50 | 13.00 | AMP optimised to IFCC 30°C |
| | U/l | 74 | 63 | 85 | 5.50 | 11.00 | AMP optimised to IFCC 25°C |
| ALT (GPT) | U/l | 42 | 33 | 51 | 4.50 | 9.00 | Tris buffer without P5P 37°C |
| | U/l | 31 | 24 | 38 | 3.50 | 7.00 | Tris buffer without P5P 30°C |
| | U/l | 24 | 19 | 29 | 2.50 | 5.00 | Tris buffer without P5P 25°C |
| AST (GOT) | U/l | 40 | 32 | 48 | 4.00 | 8.00 | Tris buffer without P5P 37°C |
| | U/l | 27 | 22 | 32 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 19 | 15 | 23 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| Bilirubin Total | µmol/l | 35.9 | 28.3 | 43.5 | 3.80 | 7.60 | Diazo with Sulphanilic Acid |
| | mg/dl | 2.10 | 1.66 | 2.54 | 0.22 | 0.44 | |
| Calcium | mmol/l | 2.25 | 2.03 | 2.47 | 0.11 | 0.22 | Arsenazo III |
| | mg/dl | 9.02 | 8.14 | 9.90 | 0.44 | 0.88 | |
| Cholesterol | mmol/l | 4.21 | 3.66 | 4.76 | 0.28 | 0.55 | Cholesterol Oxidase |
| | mg/dl | 163 | 141 | 185 | 11.00 | 22.00 | |
| CK Total | U/l | 205 | 168 | 242 | 18.50 | 37.00 | CK-NAC (IFCC) 37°C |
| | U/l | 128 | 105 | 151 | 11.50 | 23.00 | CK-NAC (IFCC) 30°C |
| | U/l | 87 | 71 | 103 | 8.00 | 16.00 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 122 | 97.9 | 146 | 12.05 | 24.10 | Alkaline picrate no deproteinization |
| | mg/dl | 1.38 | 1.11 | 1.65 | 0.14 | 0.27 | |



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## BIOSYSTEMS A25

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Glucose | mmol/l | 6.40 | 5.44 | 7.36 | 0.48 | 0.96 | Glucose oxidase |
| | mg/dl | 115 | 98.0 | 132 | 8.50 | 17.00 | |
| Protein Total | g/l | 57.4 | 46.0 | 68.8 | 5.70 | 11.40 | Biuret reaction end point |
| | g/dl | 5.74 | 4.60 | 6.88 | 0.57 | 1.14 | |
| Triglycerides | mmol/l | 1.02 | 0.86 | 1.18 | 0.08 | 0.16 | Lipase/GPO-PAP no correction |
| | mg/dl | 90.3 | 76.2 | 104 | 7.05 | 14.10 | |
| Uric Acid (Urate) | mmol/l | 0.36 | 0.31 | 0.41 | 0.02 | 0.05 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 6.05 | 5.26 | 6.84 | 0.40 | 0.79 | |
| | mmol/l | 0.38 | 0.33 | 0.43 | 0.02 | 0.05 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 6.33 | 5.51 | 7.15 | 0.41 | 0.82 | |
| Urea | mmol/l | 7.48 | 6.36 | 8.60 | 0.56 | 1.12 | Urease kinetic |
| | mg/dl | 45.0 | 38.2 | 51.8 | 3.40 | 6.80 | |
| | mmol/l | 7.48 | 6.36 | 8.60 | 0.56 | 1.12 | BUN |
| | mg/dl | 21.0 | 17.9 | 24.1 | 1.55 | 3.10 | |



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## COBAS INTEGRA®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 41.8 | 35.5 | 48.1 | 3.15 | 6.30 | Bromocresol Green |
| | g/dl | 4.18 | 3.55 | 4.81 | 0.32 | 0.63 | |
| | g/l | 40.6 | 34.5 | 46.7 | 3.05 | 6.10 | Bromocresol Purple |
| | g/dl | 4.06 | 3.45 | 4.67 | 0.31 | 0.61 | |
| | g/l | 38.2 | 32.4 | 44.0 | 2.90 | 5.80 | Turbidimetric Assays |
| | g/dl | 3.82 | 3.24 | 4.40 | 0.29 | 0.58 | |
| Alkaline Phosphatase | U/l | 96 | 81 | 111 | 7.50 | 15.00 | Roche Integra AMP buffer 37°C |
| | U/l | 75 | 63 | 87 | 6.00 | 12.00 | Roche Integra AMP buffer 30°C |
| | U/l | 61 | 52 | 70 | 4.50 | 9.00 | Roche Integra AMP buffer 25°C |
| ALT (GPT) | U/l | 34 | 27 | 41 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 25 | 20 | 30 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 19 | 15 | 23 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| Amylase Pancreatic | U/l | 70 | 59 | 81 | 5.50 | 11.00 | Randox EPS Liquid and BM/Roche EPS Liquid 37°C |
| Amylase Total | U/l | 92 | 78 | 106 | 7.00 | 14.00 | Roche Integra 2-chloro-pNPG7 37°C |
| | U/l | 92 | 78 | 106 | 7.00 | 14.00 | Roche liquid stable pNPG7 37°C |
| AST (GOT) | U/l | 34 | 27 | 41 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 23 | 18 | 28 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 16 | 13 | 19 | 1.50 | 3.00 | Tris buffer without P5P 25°C |
| Bicarbonate | mmol/l | 13.7 | 10.9 | 16.5 | 1.40 | 2.80 | Enzymatic |
| Bilirubin Direct | µmol/l | 20.8 | 16.4 | 25.2 | 2.20 | 4.40 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.22 | 0.959 | 1.48 | 0.13 | 0.26 | |



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## COBAS INTEGRA®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Bilirubin Direct | µmol/l | 19.8 | 15.6 | 24.0 | 2.10 | 4.20 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.16 | 0.913 | 1.41 | 0.12 | 0.25 | |
| | µmol/l | 20.7 | 16.3 | 25.1 | 2.20 | 4.40 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.21 | 0.954 | 1.47 | 0.13 | 0.26 | |
| Bilirubin Total | µmol/l | 27.2 | 21.5 | 32.9 | 2.85 | 5.70 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.59 | 1.26 | 1.92 | 0.17 | 0.33 | |
| | µmol/l | 27.3 | 21.5 | 33.1 | 2.90 | 5.80 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.60 | 1.26 | 1.94 | 0.17 | 0.34 | |
| | µmol/l | 27.5 | 21.7 | 33.3 | 2.90 | 5.80 | Diazonium ion |
| | mg/dl | 1.61 | 1.27 | 1.95 | 0.17 | 0.34 | |
| Calcium | mmol/l | 2.26 | 2.03 | 2.49 | 0.12 | 0.23 | Cresolphthalein complexone |
| | mg/dl | 9.06 | 8.14 | 9.98 | 0.46 | 0.92 | |
| | mmol/l | 2.26 | 2.03 | 2.49 | 0.12 | 0.23 | NM-BAPTA |
| | mg/dl | 9.06 | 8.14 | 9.98 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 4.12 | 3.59 | 4.65 | 0.27 | 0.53 | Cholesterol Oxidase |
| | mg/dl | 159 | 139 | 179 | 10.00 | 20.00 | |
| Chloride | mmol/l | 95.8 | 88.1 | 104 | 3.85 | 7.70 | ISE indirect |
| Cholinesterase | U/l | 5663 | 4530 | 6796 | 566.50 | 1133.00 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 196 | 161 | 231 | 17.50 | 35.00 | CK-NAC (IFCC) 37°C |
| | U/l | 123 | 101 | 145 | 11.00 | 22.00 | CK-NAC (IFCC) 30°C |
| | U/l | 83 | 68 | 98 | 7.50 | 15.00 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 118 | 94.7 | 141 | 11.65 | 23.30 | Alkaline picrate with deproteinization |
| | mg/dl | 1.33 | 1.07 | 1.59 | 0.13 | 0.26 | |
| | µmol/l | 117 | 93.2 | 141 | 11.90 | 23.80 | Alkaline picrate no deproteinization |
| | mg/dl | 1.32 | 1.05 | 1.59 | 0.14 | 0.27 | |



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## COBAS INTEGRA®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Creatinine | µmol/l | 119 | 95.6 | 142 | 11.70 | 23.40 | Roche Creatinine Plus |
| | mg/dl | 1.34 | 1.08 | 1.60 | 0.13 | 0.26 | |
| | µmol/l | 113 | 90.4 | 136 | 11.30 | 22.60 | Jaffe rate blanked |
| | mg/dl | 1.28 | 1.02 | 1.54 | 0.13 | 0.26 | |
| | µmol/l | 120 | 96.4 | 144 | 11.80 | 23.60 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.36 | 1.09 | 1.63 | 0.14 | 0.27 | |
| | µmol/l | 117 | 93.9 | 140 | 11.55 | 23.10 | Jaffe rate blanked compensated (-18 µmol/l) |
| | mg/dl | 1.32 | 1.06 | 1.58 | 0.13 | 0.26 | |
| gamma-GT | U/l | 50 | 43 | 57 | 3.50 | 7.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 39 | 34 | 44 | 2.50 | 5.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 31 | 27 | 35 | 2.00 | 4.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| | U/l | 57 | 49 | 65 | 4.00 | 8.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 45 | 39 | 51 | 3.00 | 6.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 35 | 30 | 40 | 2.50 | 5.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.09 | 5.18 | 7.00 | 0.46 | 0.91 | Glucose dehydrogenase |
| | mg/dl | 110 | 93.3 | 127 | 8.35 | 16.70 | |
| | mmol/l | 6.20 | 5.27 | 7.13 | 0.47 | 0.93 | Hexokinase |
| | mg/dl | 112 | 95.0 | 129 | 8.50 | 17.00 | |
| | mmol/l | 6.28 | 5.34 | 7.22 | 0.47 | 0.94 | Glucose oxidase |
| | mg/dl | 113 | 96.2 | 130 | 8.40 | 16.80 | |
| HDL - Cholesterol | mmol/l | 1.27 | 1.08 | 1.46 | 0.10 | 0.19 | Direct HDL PEGME |
| | mg/dl | 49.0 | 41.7 | 56.3 | 3.65 | 7.30 | |
| | mmol/l | 1.23 | 1.05 | 1.41 | 0.09 | 0.18 | Direct HDL Roche 3rd generation |
| | mg/dl | 47.5 | 40.5 | 54.5 | 3.50 | 7.00 | |
| Iron | µmol/l | 20.3 | 16.6 | 24.0 | 1.85 | 3.70 | Colorimetric with ppt. |
| | µg/dl | 113 | 92.8 | 133 | 10.10 | 20.20 | |



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## COBAS INTEGRA®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Iron | µmol/l | 20.7 | 17.0 | 24.4 | 1.85 | 3.70 | Colorimetric without ppt. |
| | µg/dl | 116 | 95.0 | 137 | 10.50 | 21.00 | |
| Lactate | mmol/l | 1.60 | 1.31 | 1.89 | 0.15 | 0.29 | Colorimetric Lactate Oxidase |
| | mg/dl | 14.4 | 11.8 | 17.0 | 1.30 | 2.60 | |
| LD (LDH) | U/l | 417 | 355 | 479 | 31.00 | 62.00 | P->L German methods 37°C |
| | U/l | 301 | 256 | 346 | 22.50 | 45.00 | P->L German methods 30°C |
| | U/l | 211 | 180 | 242 | 15.50 | 31.00 | P->L German methods 25°C |
| | U/l | 231 | 197 | 265 | 17.00 | 34.00 | L->P IFCC 37°C |
| | U/l | 167 | 142 | 192 | 12.50 | 25.00 | L->P IFCC 30°C |
| | U/l | 117 | 100 | 134 | 8.50 | 17.00 | L->P IFCC 25°C |
| Lipase | U/l | 38 | 31 | 45 | 3.50 | 7.00 | Roche Colorimetric 37°C |
| Lithium | mmol/l | 1.07 | 0.95 | 1.20 | 0.06 | 0.13 | Ion selective electrode |
| | mg/dl | 0.743 | 0.656 | 0.830 | 0.04 | 0.09 | |
| Magnesium | mmol/l | 0.88 | 0.78 | 0.99 | 0.05 | 0.11 | Methylthymol blue |
| | mg/dl | 2.15 | 1.89 | 2.41 | 0.13 | 0.26 | |
| | mmol/l | 0.91 | 0.80 | 1.02 | 0.06 | 0.11 | Chlorphosphonazo III |
| | mg/dl | 2.22 | 1.95 | 2.49 | 0.14 | 0.27 | |
| Phosphate Inorganic | mmol/l | 1.45 | 1.24 | 1.66 | 0.11 | 0.21 | Phosphomolybdate enzymatic |
| | mg/dl | 4.50 | 3.84 | 5.16 | 0.33 | 0.66 | |
| | mmol/l | 1.45 | 1.23 | 1.67 | 0.11 | 0.22 | Phosphomolybdate UV |
| | mg/dl | 4.50 | 3.81 | 5.19 | 0.35 | 0.69 | |
| Potassium | mmol/l | 3.95 | 3.63 | 4.27 | 0.16 | 0.32 | ISE method - indirect |
| Protein Total | g/l | 56.4 | 45.1 | 67.7 | 5.65 | 11.30 | Biuret reaction end point |
| | g/dl | 5.64 | 4.51 | 6.77 | 0.57 | 1.13 | |



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## COBAS INTEGRA®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Protein Total | g/l | 56.1 | 44.9 | 67.3 | 5.60 | 11.20 | Biuret reaction kinetic |
| | g/dl | 5.61 | 4.49 | 6.73 | 0.56 | 1.12 | |
| Sodium | mmol/l | 138 | 131 | 145 | 3.50 | 7.00 | ISE method - indirect |
| TIBC | µmol/l | 45.2 | 35.7 | 54.7 | 4.75 | 9.50 | FE+UIBC(saturation with iron) |
| | µg/dl | 253 | 200 | 306 | 26.50 | 53.00 | |
| Triglycerides | mmol/l | 1.04 | 0.87 | 1.21 | 0.08 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 92.0 | 77.3 | 107 | 7.35 | 14.70 | |
| | mmol/l | 1.03 | 0.87 | 1.20 | 0.08 | 0.17 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 91.2 | 76.6 | 106 | 7.30 | 14.60 | |
| | mmol/l | 1.02 | 0.86 | 1.19 | 0.08 | 0.17 | L/G Kinase EP. no correction |
| | mg/dl | 90.3 | 75.7 | 105 | 7.30 | 14.60 | |
| | mmol/l | 1.02 | 0.85 | 1.19 | 0.08 | 0.17 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 90.3 | 75.6 | 105 | 7.35 | 14.70 | |
| Uric Acid (Urate) | mmol/l | 0.35 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.81 | 5.06 | 6.56 | 0.38 | 0.75 | |
| | mmol/l | 0.34 | 0.30 | 0.39 | 0.02 | 0.04 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.78 | 5.04 | 6.52 | 0.37 | 0.74 | |
| | mmol/l | 0.35 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.81 | 5.06 | 6.56 | 0.38 | 0.75 | |
| Urea | mmol/l | 7.03 | 5.97 | 8.09 | 0.53 | 1.06 | Urease kinetic |
| | mg/dl | 42.3 | 35.9 | 48.7 | 3.20 | 6.40 | |
| | mmol/l | 7.03 | 5.98 | 8.08 | 0.53 | 1.05 | BUN |
| | mg/dl | 19.7 | 16.7 | 22.7 | 1.50 | 3.00 | |



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## ELITech/Vitalab Selectra Pro/E/XL

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 41.6 | 35.4 | 47.8 | 3.10 | 6.20 | Bromocresol Green |
| | g/dl | 4.16 | 3.54 | 4.78 | 0.31 | 0.62 | |
| Alkaline Phosphatase | U/l | 195 | 166 | 224 | 14.50 | 29.00 | Diethanolamine buffer DEA 37°C |
| ALT (GPT) | U/l | 40 | 32 | 48 | 4.00 | 8.00 | Tris buffer without P5P 37°C |
| AST (GOT) | U/l | 38 | 31 | 45 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| Bilirubin Total | µmol/l | 30.9 | 24.4 | 37.4 | 3.25 | 6.50 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.81 | 1.43 | 2.19 | 0.19 | 0.38 | |
| Calcium | mmol/l | 2.31 | 2.08 | 2.54 | 0.12 | 0.23 | Cresolphthalein complexone |
| | mg/dl | 9.26 | 8.34 | 10.2 | 0.46 | 0.92 | |
| | mmol/l | 2.20 | 1.98 | 2.42 | 0.11 | 0.22 | Arsenazo III |
| | mg/dl | 8.82 | 7.94 | 9.70 | 0.44 | 0.88 | |
| Cholesterol | mmol/l | 4.13 | 3.59 | 4.67 | 0.27 | 0.54 | Cholesterol Oxidase |
| | mg/dl | 159 | 139 | 179 | 10.00 | 20.00 | |
| CK Total | U/l | 199 | 163 | 235 | 18.00 | 36.00 | CK-NAC (IFCC) 37°C |
| Creatinine | µmol/l | 113 | 90.2 | 136 | 11.40 | 22.80 | Alkaline picrate no deproteinization |
| | mg/dl | 1.28 | 1.02 | 1.54 | 0.13 | 0.26 | |
| | µmol/l | 120 | 96.2 | 144 | 11.90 | 23.80 | Jaffe rate blanked |
| | mg/dl | 1.36 | 1.09 | 1.63 | 0.14 | 0.27 | |
| gamma-GT | U/l | 55 | 47 | 63 | 4.00 | 8.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| Glucose | mmol/l | 6.46 | 5.49 | 7.43 | 0.49 | 0.97 | Glucose oxidase |
| | mg/dl | 116 | 98.9 | 133 | 8.55 | 17.10 | |



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## ELITech/Vitalab Selectra Pro/E/XL

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Phosphate Inorganic | mmol/l | 1.47 | 1.25 | 1.69 | 0.11 | 0.22 | Phosphomolybdate UV |
| | mg/dl | 4.56 | 3.88 | 5.24 | 0.34 | 0.68 | |
| Protein Total | g/l | 60.9 | 48.7 | 73.1 | 6.10 | 12.20 | Biuret reaction end point |
| | g/dl | 6.09 | 4.87 | 7.31 | 0.61 | 1.22 | |
| Triglycerides | mmol/l | 1.14 | 0.96 | 1.32 | 0.09 | 0.18 | Lipase/GPO-PAP no correction |
| | mg/dl | 101 | 84.9 | 117 | 8.05 | 16.10 | |
| Uric Acid (Urate) | mmol/l | 0.36 | 0.31 | 0.40 | 0.02 | 0.05 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 6.01 | 5.24 | 6.78 | 0.39 | 0.77 | |
| Urea | mmol/l | 7.50 | 6.37 | 8.63 | 0.57 | 1.13 | Urease kinetic |
| | mg/dl | 45.1 | 38.3 | 51.9 | 3.40 | 6.80 | |
| | mmol/l | 7.50 | 6.38 | 8.62 | 0.56 | 1.12 | BUN |
| | mg/dl | 21.1 | 17.9 | 24.3 | 1.60 | 3.20 | |



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## HITACHI SERIES®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 41.1 | 34.9 | 47.3 | 3.10 | 6.20 | Bromocresol Green |
| | g/dl | 4.11 | 3.49 | 4.73 | 0.31 | 0.62 | |
| | g/l | 40.3 | 34.3 | 46.3 | 3.00 | 6.00 | Bromocresol Purple |
| | g/dl | 4.03 | 3.43 | 4.63 | 0.30 | 0.60 | |
| Alkaline Phosphatase | U/l | 90 | 76 | 104 | 7.00 | 14.00 | Roche Integra AMP buffer 37°C |
| | U/l | 70 | 59 | 81 | 5.50 | 11.00 | Roche Integra AMP buffer 30°C |
| | U/l | 58 | 49 | 67 | 4.50 | 9.00 | Roche Integra AMP buffer 25°C |
| | U/l | 131 | 112 | 150 | 9.50 | 19.00 | AMP optimised to IFCC 37°C |
| | U/l | 102 | 87 | 117 | 7.50 | 15.00 | AMP optimised to IFCC 30°C |
| | U/l | 84 | 72 | 96 | 6.00 | 12.00 | AMP optimised to IFCC 25°C |
| | U/l | 126 | 107 | 145 | 9.50 | 19.00 | Randox AMP 37°C |
| | U/l | 98 | 83 | 113 | 7.50 | 15.00 | Randox AMP 30°C |
| | U/l | 81 | 68 | 94 | 6.50 | 13.00 | Randox AMP 25°C |
| ALT (GPT) | U/l | 36 | 29 | 43 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 27 | 21 | 33 | 3.00 | 6.00 | Tris buffer without P5P 30°C |
| | U/l | 20 | 16 | 24 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| Amylase Pancreatic | U/l | 68 | 58 | 78 | 5.00 | 10.00 | Roche liquid stable pNPG7 37°C |
| | U/l | 78 | 66 | 90 | 6.00 | 12.00 | Randox liquid stable pNPG7 37°C |
| Amylase Total | U/l | 89 | 75 | 103 | 7.00 | 14.00 | Roche liquid stable pNPG7 37°C |
| | U/l | 102 | 87 | 117 | 7.50 | 15.00 | Randox liquid stable pNPG7 37°C |
| Acid Phosphatase (non-prostatic) | U/l | 5.36 | 3.59 | 7.13 | 0.89 | 1.77 | 1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C |



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## HITACHI SERIES®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Acid Phosphatase (non-prostatic) | U/l | 7.13 | 4.78 | 9.48 | 1.18 | 2.35 | 1-Naphthyl Phosphate substrate Kinetic 37°C |
| Acid Phosphatase (Prostatic) | U/l | 13.6 | 9.11 | 18.1 | 2.25 | 4.49 | 1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C |
| | U/l | 7.17 | 4.80 | 9.54 | 1.19 | 2.37 | 1-Naphthyl Phosphate substrate Kinetic 37°C |
| Acid Phosphatase (Total) | U/l | 19.0 | 12.7 | 25.3 | 3.15 | 6.30 | 1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C |
| | U/l | 14.3 | 9.58 | 19.0 | 2.36 | 4.72 | 1-Naphthyl Phosphate substrate Kinetic 37°C |
| AST (GOT) | U/l | 35 | 28 | 42 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 24 | 19 | 29 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 17 | 13 | 21 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| Bile Acids | µmol/l | 24.1 | 19.3 | 28.9 | 2.40 | 4.80 | 5th Generation Colorimetric |
| Bicarbonate | mmol/l | 14.0 | 11.1 | 16.9 | 1.45 | 2.90 | Colorimetric |
| | mmol/l | 14.1 | 11.2 | 17.0 | 1.45 | 2.90 | Enzymatic |
| Bilirubin Direct | µmol/l | 20.2 | 16.0 | 24.4 | 2.10 | 4.20 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.18 | 0.936 | 1.42 | 0.12 | 0.24 | |
| | µmol/l | 20.3 | 16.1 | 24.5 | 2.10 | 4.20 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.19 | 0.942 | 1.44 | 0.12 | 0.25 | |
| Bilirubin Total | µmol/l | 28.3 | 22.3 | 34.3 | 3.00 | 6.00 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.66 | 1.30 | 2.02 | 0.18 | 0.36 | |
| | µmol/l | 28.0 | 22.1 | 33.9 | 2.95 | 5.90 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.64 | 1.29 | 1.99 | 0.18 | 0.35 | |
| | µmol/l | 26.8 | 21.2 | 32.4 | 2.80 | 5.60 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.57 | 1.24 | 1.90 | 0.17 | 0.33 | |
| | µmol/l | 26.9 | 21.3 | 32.5 | 2.80 | 5.60 | Diazonium ion |
| | mg/dl | 1.57 | 1.25 | 1.89 | 0.16 | 0.32 | |
| | µmol/l | 29.5 | 23.3 | 35.7 | 3.10 | 6.20 | Oxidation to Biliverdin |
| | mg/dl | 1.73 | 1.36 | 2.10 | 0.19 | 0.37 | |



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## HITACHI SERIES®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Calcium | mmol/l | 2.26 | 2.03 | 2.49 | 0.12 | 0.23 | Cresolphthalein complexone |
| | mg/dl | 9.06 | 8.14 | 9.98 | 0.46 | 0.92 | |
| | mmol/l | 2.28 | 2.05 | 2.51 | 0.12 | 0.23 | Arsenazo III |
| | mg/dl | 9.14 | 8.22 | 10.1 | 0.46 | 0.92 | |
| | mmol/l | 2.28 | 2.05 | 2.51 | 0.12 | 0.23 | NM-BAPTA |
| | mg/dl | 9.14 | 8.22 | 10.1 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 4.03 | 3.51 | 4.55 | 0.26 | 0.52 | Cholesterol Oxidase |
| | mg/dl | 156 | 135 | 177 | 10.50 | 21.00 | |
| Chloride | mmol/l | 92.6 | 85.2 | 100 | 3.70 | 7.40 | ISE indirect |
| Cholinesterase | U/l | 5666 | 4533 | 6799 | 566.50 | 1133.00 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 185 | 151 | 219 | 17.00 | 34.00 | CK-NAC (IFCC) 37°C |
| | U/l | 116 | 95 | 137 | 10.50 | 21.00 | CK-NAC (IFCC) 30°C |
| | U/l | 79 | 64 | 94 | 7.50 | 15.00 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 125 | 99.7 | 150 | 12.65 | 25.30 | Alkaline picrate no deproteinization |
| | mg/dl | 1.41 | 1.13 | 1.69 | 0.14 | 0.28 | |
| | µmol/l | 127 | 101 | 153 | 13.00 | 26.00 | Randox Enzymatic UV method |
| | mg/dl | 1.44 | 1.14 | 1.74 | 0.15 | 0.30 | |
| | µmol/l | 127 | 101 | 153 | 13.00 | 26.00 | Creatinine PAP method |
| | mg/dl | 1.44 | 1.14 | 1.74 | 0.15 | 0.30 | |
| | µmol/l | 127 | 102 | 152 | 12.50 | 25.00 | Roche Creatinine Plus |
| | mg/dl | 1.44 | 1.15 | 1.73 | 0.15 | 0.29 | |
| | µmol/l | 127 | 102 | 152 | 12.50 | 25.00 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.44 | 1.15 | 1.73 | 0.15 | 0.29 | |
| gamma-GT | U/l | 49 | 42 | 56 | 3.50 | 7.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 39 | 33 | 45 | 3.00 | 6.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 30 | 26 | 34 | 2.00 | 4.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |



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## HITACHI SERIES®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| gamma-GT | U/l | 55 | 46 | 64 | 4.50 | 9.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 43 | 36 | 50 | 3.50 | 7.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 34 | 28 | 40 | 3.00 | 6.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| | U/l | 60 | 51 | 69 | 4.50 | 9.00 | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 47 | 40 | 54 | 3.50 | 7.00 | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 37 | 31 | 43 | 3.00 | 6.00 | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| GLDH | U/l | 24 | 19 | 29 | 2.50 | 5.00 | Triethanolamine buffer 50 mmol 37°C |
| | U/l | 18 | 15 | 21 | 1.50 | 3.00 | Triethanolamine buffer 50 mmol 30°C |
| | U/l | 15 | 12 | 18 | 1.50 | 3.00 | Triethanolamine buffer 50 mmol 25°C |
| Glucose | mmol/l | 6.13 | 5.21 | 7.05 | 0.46 | 0.92 | Hexokinase |
| | mg/dl | 110 | 93.9 | 126 | 8.05 | 16.10 | |
| | mmol/l | 6.33 | 5.38 | 7.28 | 0.48 | 0.95 | Glucose oxidase |
| | mg/dl | 114 | 96.9 | 131 | 8.55 | 17.10 | |
| alpha-HBDH | U/l | 260 | 205 | 315 | 27.50 | 55.00 | Oxobutyrate < 10 mmol/l 37°C |
| | U/l | 196 | 155 | 237 | 20.50 | 41.00 | Oxobutyrate < 10 mmol/l 30°C |
| | U/l | 147 | 116 | 178 | 15.50 | 31.00 | Oxobutyrate < 10 mmol/l 25°C |
| HDL - Cholesterol | mmol/l | 1.24 | 1.06 | 1.42 | 0.09 | 0.18 | Direct HDL Immunoseparation |
| | mg/dl | 47.9 | 40.9 | 54.9 | 3.50 | 7.00 | |
| | mmol/l | 1.28 | 1.09 | 1.47 | 0.10 | 0.19 | Direct HDL PEGME |
| | mg/dl | 49.4 | 42.1 | 56.7 | 3.65 | 7.30 | |
| | mmol/l | 1.21 | 1.03 | 1.39 | 0.09 | 0.18 | Direct HDL Roche 3rd generation |
| | mg/dl | 46.7 | 39.8 | 53.6 | 3.45 | 6.90 | |
| Iron | µmol/l | 19.7 | 16.2 | 23.2 | 1.75 | 3.50 | Colorimetric without ppt. |
| | µg/dl | 110 | 90.6 | 129 | 9.70 | 19.40 | |



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## HITACHI SERIES®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Lactate | mmol/l | 1.52 | 1.25 | 1.79 | 0.14 | 0.27 | Colorimetric Lactate Oxidase |
| | mg/dl | 13.7 | 11.3 | 16.1 | 1.20 | 2.40 | |
| LD (LDH) | U/l | 429 | 365 | 493 | 32.00 | 64.00 | P->L German methods 37°C |
| | U/l | 310 | 264 | 356 | 23.00 | 46.00 | P->L German methods 30°C |
| | U/l | 218 | 185 | 251 | 16.50 | 33.00 | P->L German methods 25°C |
| | U/l | 214 | 182 | 246 | 16.00 | 32.00 | L->P IFCC 37°C |
| | U/l | 155 | 131 | 179 | 12.00 | 24.00 | L->P IFCC 30°C |
| | U/l | 108 | 92 | 124 | 8.00 | 16.00 | L->P IFCC 25°C |
| Lipase | U/l | 38 | 30 | 46 | 4.00 | 8.00 | Other Colorimetric 37°C |
| | U/l | 36 | 29 | 43 | 3.50 | 7.00 | Roche Colorimetric 37°C |
| Lithium | mmol/l | 1.05 | 0.92 | 1.18 | 0.06 | 0.13 | Spectrophotometric |
| | mg/dl | 0.729 | 0.640 | 0.818 | 0.04 | 0.09 | |
| Magnesium | mmol/l | 0.91 | 0.80 | 1.02 | 0.06 | 0.11 | Xylidyl Blue |
| | mg/dl | 2.22 | 1.95 | 2.49 | 0.14 | 0.27 | |
| | mmol/l | 0.89 | 0.78 | 1.00 | 0.05 | 0.11 | Enzymatic |
| | mg/dl | 2.16 | 1.90 | 2.42 | 0.13 | 0.26 | |
| Osmolality | mOsm/kg | 292 | 234 | 350 | 29.00 | 58.00 | Calculated |
| Phosphate Inorganic | mmol/l | 1.40 | 1.19 | 1.61 | 0.11 | 0.21 | Phosphomolybdate UV |
| | mg/dl | 4.34 | 3.69 | 4.99 | 0.33 | 0.65 | |
| Potassium | mmol/l | 4.00 | 3.68 | 4.32 | 0.16 | 0.32 | ISE method - indirect |
| Protein Total | g/l | 57.6 | 46.1 | 69.1 | 5.75 | 11.50 | Biuret reaction end point |
| | g/dl | 5.76 | 4.61 | 6.91 | 0.58 | 1.15 | |
| Sodium | mmol/l | 140 | 133 | 147 | 3.50 | 7.00 | ISE method - indirect |
| TIBC | µmol/l | 42.8 | 33.8 | 51.8 | 4.50 | 9.00 | FE+UIBC(saturation with iron) |
| | µg/dl | 239 | 189 | 289 | 25.00 | 50.00 | |



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## HITACHI SERIES®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Triglycerides | mmol/l | 1.04 | 0.87 | 1.21 | 0.08 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 92.0 | 77.3 | 107 | 7.35 | 14.70 | |
| | mmol/l | 1.01 | 0.85 | 1.17 | 0.08 | 0.16 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 89.4 | 75.2 | 104 | 7.10 | 14.20 | |
| Uric Acid (Urate) | mmol/l | 0.34 | 0.30 | 0.38 | 0.02 | 0.04 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.71 | 4.97 | 6.45 | 0.37 | 0.74 | |
| | mmol/l | 0.34 | 0.30 | 0.39 | 0.02 | 0.04 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.75 | 5.01 | 6.49 | 0.37 | 0.74 | |
| | mmol/l | 0.34 | 0.29 | 0.38 | 0.02 | 0.04 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.66 | 4.92 | 6.40 | 0.37 | 0.74 | |
| Urea | mmol/l | 7.40 | 6.29 | 8.51 | 0.56 | 1.11 | Urease kinetic |
| | mg/dl | 44.5 | 37.8 | 51.2 | 3.35 | 6.70 | |
| | mmol/l | 7.40 | 6.29 | 8.51 | 0.56 | 1.11 | BUN |
| | mg/dl | 20.8 | 17.7 | 23.9 | 1.55 | 3.10 | |



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## ILab 600®/650®/Aries®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 40.1 | 34.1 | 46.1 | 3.00 | 6.00 | Bromocresol Green |
| | g/dl | 4.01 | 3.41 | 4.61 | 0.30 | 0.60 | |
| Alkaline Phosphatase | U/l | 129 | 110 | 148 | 9.50 | 19.00 | AMP optimised to IFCC 37°C |
| | U/l | 100 | 86 | 114 | 7.00 | 14.00 | AMP optimised to IFCC 30°C |
| | U/l | 82 | 70 | 94 | 6.00 | 12.00 | AMP optimised to IFCC 25°C |
| ALT (GPT) | U/l | 37 | 30 | 44 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 27 | 22 | 32 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 21 | 17 | 25 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| AST (GOT) | U/l | 34 | 27 | 41 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 23 | 18 | 28 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 16 | 13 | 19 | 1.50 | 3.00 | Tris buffer without P5P 25°C |
| Bile Acids | µmol/l | 25.3 | 20.2 | 30.4 | 2.55 | 5.10 | Enzymatic Colorimetric |
| Bilirubin Total | µmol/l | 31.8 | 25.1 | 38.5 | 3.35 | 6.70 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.86 | 1.47 | 2.25 | 0.20 | 0.39 | |
| Calcium | mmol/l | 2.32 | 2.09 | 2.55 | 0.12 | 0.23 | Cresolphthalein complexone |
| | mg/dl | 9.30 | 8.38 | 10.2 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 3.92 | 3.41 | 4.43 | 0.26 | 0.51 | Cholesterol Oxidase |
| | mg/dl | 151 | 132 | 170 | 9.50 | 19.00 | |
| Chloride | mmol/l | 94.1 | 86.6 | 102 | 3.75 | 7.50 | ISE indirect |
| CK Total | U/l | 176 | 145 | 207 | 15.50 | 31.00 | CK-NAC (IFCC) 37°C |
| | U/l | 110 | 91 | 129 | 9.50 | 19.00 | CK-NAC (IFCC) 30°C |
| | U/l | 75 | 62 | 88 | 6.50 | 13.00 | CK-NAC (IFCC) 25°C |



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## ILab 600®/650®/Aries®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Creatinine | µmol/l | 128 | 102 | 154 | 13.00 | 26.00 | Alkaline picrate no deproteinization |
| | mg/dl | 1.45 | 1.15 | 1.75 | 0.15 | 0.30 | |
| D-3-Hydroxybutyrate | mmol/l | 0.28 | 0.24 | 0.33 | 0.02 | 0.04 | Tris buffer 100mmol pH 8.5 |
| gamma-GT | U/l | 50 | 42 | 58 | 4.00 | 8.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 39 | 33 | 45 | 3.00 | 6.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 31 | 26 | 36 | 2.50 | 5.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| | U/l | 51 | 43 | 59 | 4.00 | 8.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 40 | 34 | 46 | 3.00 | 6.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 31 | 27 | 35 | 2.00 | 4.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.25 | 5.31 | 7.19 | 0.47 | 0.94 | Hexokinase |
| | mg/dl | 113 | 95.7 | 130 | 8.65 | 17.30 | |
| | mmol/l | 6.18 | 5.25 | 7.11 | 0.47 | 0.93 | Glucose oxidase |
| | mg/dl | 111 | 94.6 | 127 | 8.20 | 16.40 | |
| HDL - Cholesterol | mmol/l | 1.16 | 0.99 | 1.33 | 0.09 | 0.17 | Direct HDL Immunoseparation |
| | mg/dl | 44.8 | 38.1 | 51.5 | 3.35 | 6.70 | |
| Iron | µmol/l | 20.3 | 16.7 | 23.9 | 1.80 | 3.60 | Colorimetric without ppt. |
| | µg/dl | 113 | 93.4 | 133 | 9.80 | 19.60 | |
| LD (LDH) | U/l | 429 | 365 | 493 | 32.00 | 64.00 | P->L German methods 37°C |
| | U/l | 310 | 264 | 356 | 23.00 | 46.00 | P->L German methods 30°C |
| | U/l | 218 | 185 | 251 | 16.50 | 33.00 | P->L German methods 25°C |
| Magnesium | mmol/l | 0.96 | 0.84 | 1.07 | 0.06 | 0.12 | Xylidyl Blue |
| | mg/dl | 2.33 | 2.05 | 2.61 | 0.14 | 0.28 | |
| Phosphate Inorganic | mmol/l | 1.43 | 1.21 | 1.65 | 0.11 | 0.22 | Phosphomolybdate UV |
| | mg/dl | 4.43 | 3.75 | 5.11 | 0.34 | 0.68 | |



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## ILab 600®/650®/Aries®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Potassium | mmol/l | 4.07 | 3.75 | 4.39 | 0.16 | 0.32 | ISE method - indirect |
| Protein Total | g/l | 58.0 | 46.4 | 69.6 | 5.80 | 11.60 | Biuret reaction end point |
| | g/dl | 5.80 | 4.64 | 6.96 | 0.58 | 1.16 | |
| Sodium | mmol/l | 140 | 133 | 147 | 3.50 | 7.00 | ISE method - indirect |
| Triglycerides | mmol/l | 1.05 | 0.88 | 1.22 | 0.09 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 92.9 | 77.7 | 108 | 7.60 | 15.20 | |
| | mmol/l | 1.04 | 0.88 | 1.20 | 0.08 | 0.16 | L/G Kinase EP. no correction |
| | mg/dl | 92.0 | 77.6 | 106 | 7.20 | 14.40 | |
| Uric Acid (Urate) | mmol/l | 0.35 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.81 | 5.06 | 6.56 | 0.38 | 0.75 | |
| Urea | mmol/l | 7.40 | 6.29 | 8.51 | 0.56 | 1.11 | Urease end point |
| | mg/dl | 44.5 | 37.8 | 51.2 | 3.35 | 6.70 | |
| | mmol/l | 7.40 | 6.29 | 8.51 | 0.56 | 1.11 | BUN |
| | mg/dl | 20.8 | 17.7 | 23.9 | 1.55 | 3.10 | |



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## JOHNSON AND JOHNSON VITROS®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 38.4 | 32.6 | 44.2 | 2.90 | 5.80 | Ortho Vitros Microslide Systems |
| | g/dl | 3.84 | 3.26 | 4.42 | 0.29 | 0.58 | |
| Alkaline Phosphatase | U/l | 104 | 88 | 120 | 8.00 | 16.00 | Ortho Vitros Microslide Systems 37°C |
| ALT (GPT) | U/l | 45 | 36 | 54 | 4.50 | 9.00 | Ortho Vitros Microslide Systems 37°C |
| Amylase Total | U/l | 64 | 55 | 73 | 4.50 | 9.00 | Ortho Vitros Microslide Systems 37°C |
| AST (GOT) | U/l | 49 | 39 | 59 | 5.00 | 10.00 | Ortho Vitros Microslide visible slide 37°C |
| Bicarbonate | mmol/l | 14.4 | 11.4 | 17.4 | 1.50 | 3.00 | Ortho Vitros Microslide Systems |
| Bilirubin Direct | µmol/l | 11.8 | 9.34 | 14.3 | 1.23 | 2.46 | Vitros Total Bil - BU |
| | mg/dl | 0.690 | 0.546 | 0.834 | 0.07 | 0.14 | |
| Bilirubin Total | µmol/l | 25.2 | 19.9 | 30.5 | 2.65 | 5.30 | Vitros 250/500/700/950 Total Bilirubin |
| | mg/dl | 1.47 | 1.16 | 1.78 | 0.16 | 0.31 | |
| | µmol/l | 26.4 | 20.9 | 31.9 | 2.75 | 5.50 | Vitros 250/500/700/950 Total BUBC |
| | mg/dl | 1.54 | 1.22 | 1.86 | 0.16 | 0.32 | |
| Calcium | mmol/l | 2.31 | 2.08 | 2.54 | 0.12 | 0.23 | Ortho Vitros Microslide Systems |
| | mg/dl | 9.26 | 8.34 | 10.2 | 0.46 | 0.92 | |
| | mmol/l | 2.31 | 2.08 | 2.54 | 0.12 | 0.23 | Vitros DT60/DT60 II/DTSC II |
| | mg/dl | 9.26 | 8.34 | 10.2 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 3.77 | 3.28 | 4.26 | 0.25 | 0.49 | Ortho Vitros Microslide Systems |
| | mg/dl | 146 | 127 | 165 | 9.50 | 19.00 | |
| | mmol/l | 4.02 | 3.50 | 4.54 | 0.26 | 0.52 | Vitros DT60/DT60 II |
| | mg/dl | 155 | 135 | 175 | 10.00 | 20.00 | |



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## JOHNSON AND JOHNSON VITROS®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Chloride | mmol/l | 96.5 | 88.8 | 104 | 3.85 | 7.70 | Ortho Vitros Microslide Systems |
| | mmol/l | 96.3 | 88.6 | 104 | 3.85 | 7.70 | Vitros DT60/DT60 II/DTE II |
| Cholinesterase | U/l | 5591 | 4473 | 6709 | 559.00 | 1118.00 | Ortho Vitros Microslide Systems 37°C |
| CK Total | U/l | 167 | 137 | 197 | 15.00 | 30.00 | Ortho Vitros Microslide Systems 37°C |
| Creatinine | µmol/l | 132 | 106 | 158 | 13.00 | 26.00 | Vitros DT60/DT60 II/DTSC II |
| | mg/dl | 1.49 | 1.20 | 1.78 | 0.15 | 0.29 | |
| | µmol/l | 124 | 99.2 | 149 | 12.40 | 24.80 | Vitros IDMS Traceable |
| | mg/dl | 1.40 | 1.12 | 1.68 | 0.14 | 0.28 | |
| Free T4 | pmol/l | 34.5 | 25.9 | 43.1 | 4.30 | 8.60 | Vitros ECi |
| | ng/dl | 2.69 | 2.02 | 3.36 | 0.34 | 0.67 | |
| | pg/ml | 26.9 | 20.2 | 33.6 | 3.35 | 6.70 | Vitros ECi |
| gamma-GT | U/l | 68 | 58 | 78 | 5.00 | 10.00 | Ortho Vitros Microslide Systems 37°C |
| | U/l | 69 | 59 | 79 | 5.00 | 10.00 | Vitros DT60/DT60 II/DTSC II 37°C |
| Glucose | mmol/l | 5.90 | 5.02 | 6.78 | 0.44 | 0.88 | Ortho Vitros Microslide Systems |
| | mg/dl | 106 | 90.5 | 122 | 7.75 | 15.50 | |
| | mmol/l | 5.82 | 4.94 | 6.70 | 0.44 | 0.88 | Vitros DT60/DT60 II |
| | mg/dl | 105 | 89.0 | 121 | 8.00 | 16.00 | |
| HDL - Cholesterol | mmol/l | 1.21 | 1.03 | 1.39 | 0.09 | 0.18 | Vitros Magnetic HDL |
| | mg/dl | 46.7 | 39.8 | 53.6 | 3.45 | 6.90 | |
| | mmol/l | 1.25 | 1.06 | 1.44 | 0.10 | 0.19 | Vitros 5.1 FS microtip assay |
| | mg/dl | 48.3 | 40.9 | 55.7 | 3.70 | 7.40 | |
| | mmol/l | 1.21 | 1.03 | 1.39 | 0.09 | 0.18 | Vitros dHDL PTA/MgCl2 direct precipitation |
| | mg/dl | 46.7 | 39.8 | 53.6 | 3.45 | 6.90 | |
| Iron | µmol/l | 20.3 | 16.6 | 24.0 | 1.85 | 3.70 | Ortho Vitros Microslide Systems |
| | µg/dl | 113 | 92.8 | 133 | 10.10 | 20.20 | |



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## JOHNSON AND JOHNSON VITROS®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Lactate | mmol/l | 1.43 | 1.17 | 1.69 | 0.13 | 0.26 | Ortho Vitros Microslide Systems |
| | mg/dl | 12.9 | 10.5 | 15.3 | 1.20 | 2.40 | |
| LD (LDH) | U/l | 621 | 528 | 714 | 46.50 | 93.00 | Ortho Vitros Microslide Systems 37°C |
| Lipase | U/l | 264 | 212 | 316 | 26.00 | 52.00 | Ortho Vitros Microslide Systems 37°C |
| | U/l | 263 | 211 | 315 | 26.00 | 52.00 | Vitros DT60/DT60 II/DTSC II 37°C |
| Lithium | mmol/l | 1.25 | 1.10 | 1.40 | 0.08 | 0.15 | Ortho Vitros Microslide Systems |
| | mg/dl | 0.868 | 0.764 | 0.972 | 0.05 | 0.10 | |
| Magnesium | mmol/l | 0.90 | 0.79 | 1.01 | 0.05 | 0.11 | Ortho Vitros Microslide Systems |
| | mg/dl | 2.18 | 1.92 | 2.44 | 0.13 | 0.26 | |
| | mmol/l | 0.86 | 0.76 | 0.97 | 0.05 | 0.10 | Vitros DT60/DT60 II |
| | mg/dl | 2.10 | 1.85 | 2.35 | 0.13 | 0.25 | |
| Phosphate Inorganic | mmol/l | 1.52 | 1.29 | 1.75 | 0.12 | 0.23 | Ortho Vitros Microslide Systems |
| | mg/dl | 4.71 | 4.00 | 5.42 | 0.36 | 0.71 | |
| Potassium | mmol/l | 4.01 | 3.69 | 4.33 | 0.16 | 0.32 | Ortho Vitros Microslide Systems |
| | mmol/l | 3.88 | 3.57 | 4.19 | 0.16 | 0.31 | Vitros DT60/DT60 II/DTE II |
| Protein Total | g/l | 57.9 | 46.3 | 69.5 | 5.80 | 11.60 | Ortho Vitros Microslide Systems |
| | g/dl | 5.79 | 4.63 | 6.95 | 0.58 | 1.16 | |
| PSA Total | ng/ml = | 16.4 | 12.3 | 20.5 | 2.05 | 4.10 | Ortho Vitros 3600/5600/ECi PSA II |
| Sodium | mmol/l | 139 | 132 | 146 | 3.50 | 7.00 | Ortho Vitros Microslide Systems |
| | mmol/l | 139 | 132 | 146 | 3.50 | 7.00 | Vitros DT60/DT60 II/DTE II |
| Thyroid Stimulating Hormone | µU/ml = | 1.35 | 1.08 | 1.62 | 0.14 | 0.27 | Vitros ECi |
| Total T3 | nmol/l | 3.93 | 2.95 | 4.91 | 0.49 | 0.98 | Vitros ECi |
| | ng/ml | 2.56 | 1.92 | 3.20 | 0.32 | 0.64 | |
| | ng/dl | 256 | 192 | 320 | 32.00 | 64.00 | Vitros ECi |
| Triglycerides | mmol/l | 1.16 | 0.98 | 1.34 | 0.09 | 0.18 | Ortho Vitros Microslide Systems |
| | mg/dl | 103 | 86.6 | 119 | 8.20 | 16.40 | |



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## JOHNSON AND JOHNSON VITROS®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Triglycerides | mmol/l | 1.13 | 0.95 | 1.31 | 0.09 | 0.18 | Vitros DT60/DT60 II |
| | mg/dl | 100 | 84.3 | 116 | 7.85 | 15.70 | |
| Uric Acid (Urate) | mmol/l | 0.33 | 0.29 | 0.37 | 0.02 | 0.04 | Ortho Vitros Microslide Systems |
| | mg/dl | 5.53 | 4.80 | 6.26 | 0.37 | 0.73 | |
| | mmol/l | 0.34 | 0.30 | 0.39 | 0.02 | 0.04 | Vitros DT60/DT60 II |
| | mg/dl | 5.73 | 4.99 | 6.47 | 0.37 | 0.74 | |
| Urea | mmol/l | 6.85 | 5.82 | 7.88 | 0.52 | 1.03 | Ortho Vitros Microslide Systems |
| | mg/dl | 41.2 | 35.0 | 47.4 | 3.10 | 6.20 | |
| | mmol/l | 7.12 | 6.05 | 8.19 | 0.54 | 1.07 | Vitros DT60/DT60 II |
| | mg/dl | 42.8 | 36.4 | 49.2 | 3.20 | 6.40 | |
| | mmol/l | 6.85 | 5.82 | 7.88 | 0.52 | 1.03 | BUN |
| | mg/dl | 19.2 | 16.3 | 22.1 | 1.45 | 2.90 | |



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## Konelab 20/30/60®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 38.6 | 32.8 | 44.4 | 2.90 | 5.80 | Bromocresol Green |
| | g/dl | 3.86 | 3.28 | 4.44 | 0.29 | 0.58 | |
| Alkaline Phosphatase | U/l | 122 | 104 | 140 | 9.00 | 18.00 | AMP optimised to NVKC/SFBC 37°C |
| | U/l | 95 | 81 | 109 | 7.00 | 14.00 | AMP optimised to NVKC/SFBC 30°C |
| | U/l | 78 | 66 | 90 | 6.00 | 12.00 | AMP optimised to NVKC/SFBC 25°C |
| ALT (GPT) | U/l | 39 | 32 | 46 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 29 | 24 | 34 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 22 | 18 | 26 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| Amylase Total | U/l | 83 | 71 | 95 | 6.00 | 12.00 | bioMerieux 2-chloro-pNPG3 37°C |
| AST (GOT) | U/l | 39 | 31 | 47 | 4.00 | 8.00 | Tris buffer without P5P 37°C |
| | U/l | 26 | 21 | 31 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 19 | 15 | 23 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| Bile Acids | µmol/l | 27.5 | 22.0 | 33.0 | 2.75 | 5.50 | Enzymatic Colorimetric |
| Bicarbonate | mmol/l | 14.0 | 11.1 | 16.9 | 1.45 | 2.90 | Enzymatic |
| Bilirubin Direct | µmol/l | 19.5 | 15.4 | 23.6 | 2.05 | 4.10 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.14 | 0.901 | 1.38 | 0.12 | 0.24 | |
| Bilirubin Total | µmol/l | 28.8 | 22.7 | 34.9 | 3.05 | 6.10 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.68 | 1.33 | 2.03 | 0.18 | 0.35 | |
| | µmol/l | 25.8 | 20.4 | 31.2 | 2.70 | 5.40 | Nitrobenzenediazonium salt |
| | mg/dl | 1.51 | 1.19 | 1.83 | 0.16 | 0.32 | |
| Calcium | mmol/l | 2.30 | 2.07 | 2.53 | 0.12 | 0.23 | Arsenazo III |
| | mg/dl | 9.22 | 8.30 | 10.1 | 0.46 | 0.92 | |



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## Konelab 20/30/60®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Cholesterol | mmol/l | 3.93 | 3.42 | 4.44 | 0.26 | 0.51 | Cholesterol Oxidase |
| | mg/dl | 152 | 132 | 172 | 10.00 | 20.00 | |
| Chloride | mmol/l | 99.6 | 91.6 | 108 | 4.00 | 8.00 | ISE direct |
| CK Total | U/l | 193 | 159 | 227 | 17.00 | 34.00 | CK-NAC serum start (DGKC) 37°C |
| | U/l | 121 | 100 | 142 | 10.50 | 21.00 | CK-NAC serum start (DGKC) 30°C |
| | U/l | 82 | 68 | 96 | 7.00 | 14.00 | CK-NAC serum start (DGKC) 25°C |
| | U/l | 190 | 156 | 224 | 17.00 | 34.00 | CK-NAC (IFCC) 37°C |
| | U/l | 119 | 98 | 140 | 10.50 | 21.00 | CK-NAC (IFCC) 30°C |
| | U/l | 81 | 66 | 96 | 7.50 | 15.00 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 125 | 99.7 | 150 | 12.65 | 25.30 | Alkaline picrate no deproteinization |
| | mg/dl | 1.41 | 1.13 | 1.69 | 0.14 | 0.28 | |
| | µmol/l | 123 | 98.0 | 148 | 12.50 | 25.00 | Randox Enzymatic UV method |
| | mg/dl | 1.39 | 1.11 | 1.67 | 0.14 | 0.28 | |
| | µmol/l | 127 | 101 | 153 | 13.00 | 26.00 | Creatinine PAP method |
| | mg/dl | 1.44 | 1.14 | 1.74 | 0.15 | 0.30 | |
| | µmol/l | 123 | 98.6 | 147 | 12.20 | 24.40 | Jaffe rate blanked |
| | mg/dl | 1.39 | 1.11 | 1.67 | 0.14 | 0.28 | |
| D-3-Hydroxybutyrate | mmol/l | 0.28 | 0.24 | 0.33 | 0.02 | 0.04 | Tris buffer 100mmol pH 8.5 |
| gamma-GT | U/l | 56 | 48 | 64 | 4.00 | 8.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 44 | 38 | 50 | 3.00 | 6.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 35 | 30 | 40 | 2.50 | 5.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.45 | 5.48 | 7.42 | 0.49 | 0.97 | Hexokinase |
| | mg/dl | 116 | 98.7 | 133 | 8.65 | 17.30 | |
| | mmol/l | 6.24 | 5.31 | 7.17 | 0.47 | 0.93 | Glucose oxidase |
| | mg/dl | 112 | 95.7 | 128 | 8.15 | 16.30 | |



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## Konelab 20/30/60®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| HDL - Cholesterol | mmol/l | 1.19 | 1.01 | 1.37 | 0.09 | 0.18 | Direct HDL PEGME |
| | mg/dl | 45.9 | 39.0 | 52.8 | 3.45 | 6.90 | |
| | mmol/l | 1.29 | 1.10 | 1.48 | 0.10 | 0.19 | Direct Clearance Method |
| | mg/dl | 49.8 | 42.5 | 57.1 | 3.65 | 7.30 | |
| Iron | µmol/l | 23.3 | 19.1 | 27.5 | 2.10 | 4.20 | Colorimetric without ppt. |
| | µg/dl | 130 | 107 | 153 | 11.50 | 23.00 | |
| LD (LDH) | U/l | 455 | 387 | 523 | 34.00 | 68.00 | P->L Scandinavian & Dutch 37°C |
| | U/l | 329 | 279 | 379 | 25.00 | 50.00 | P->L Scandinavian & Dutch 30°C |
| | U/l | 231 | 196 | 266 | 17.50 | 35.00 | P->L Scandinavian & Dutch 25°C |
| | U/l | 447 | 380 | 514 | 33.50 | 67.00 | P->L German methods 37°C |
| | U/l | 323 | 274 | 372 | 24.50 | 49.00 | P->L German methods 30°C |
| | U/l | 227 | 193 | 261 | 17.00 | 34.00 | P->L German methods 25°C |
| Magnesium | mmol/l | 0.98 | 0.86 | 1.09 | 0.06 | 0.12 | Calmagite |
| | mg/dl | 2.37 | 2.09 | 2.65 | 0.14 | 0.28 | |
| | mmol/l | 0.91 | 0.80 | 1.02 | 0.05 | 0.11 | Xylidyl Blue |
| | mg/dl | 2.20 | 1.94 | 2.46 | 0.13 | 0.26 | |
| Phosphate Inorganic | mmol/l | 1.44 | 1.23 | 1.65 | 0.11 | 0.21 | Phosphomolybdate UV |
| | mg/dl | 4.46 | 3.81 | 5.11 | 0.33 | 0.65 | |
| Potassium | mmol/l | 3.84 | 3.54 | 4.14 | 0.15 | 0.30 | ISE method - direct |
| Protein Total | g/l | 59.9 | 48.0 | 71.8 | 5.95 | 11.90 | Biuret reaction end point |
| | g/dl | 5.99 | 4.80 | 7.18 | 0.60 | 1.19 | |
| Sodium | mmol/l | 136 | 129 | 143 | 3.50 | 7.00 | ISE method - direct |
| Triglycerides | mmol/l | 1.08 | 0.91 | 1.25 | 0.08 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 95.6 | 80.6 | 111 | 7.50 | 15.00 | |



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## Konelab 20/30/60®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Uric Acid (Urate) | mmol/l | 0.37 | 0.32 | 0.41 | 0.02 | 0.05 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 6.13 | 5.33 | 6.93 | 0.40 | 0.80 | |
| | mmol/l | 0.35 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.85 | 5.09 | 6.61 | 0.38 | 0.76 | |
| | mmol/l | 0.36 | 0.32 | 0.41 | 0.02 | 0.05 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 6.08 | 5.29 | 6.87 | 0.40 | 0.79 | |
| Urea | mmol/l | 7.36 | 6.25 | 8.47 | 0.56 | 1.11 | Urease kinetic |
| | mg/dl | 44.2 | 37.6 | 50.8 | 3.30 | 6.60 | |
| | mmol/l | 7.36 | 6.26 | 8.46 | 0.55 | 1.10 | BUN |
| | mg/dl | 20.7 | 17.6 | 23.8 | 1.55 | 3.10 | |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 40.5 | 34.4 | 46.6 | 3.05 | 6.10 | Bromocresol Green |
| | g/dl | 4.05 | 3.44 | 4.66 | 0.31 | 0.61 | |
| | g/l | 41.4 | 35.2 | 47.6 | 3.10 | 6.20 | Bromocresol Purple |
| | g/dl | 4.14 | 3.52 | 4.76 | 0.31 | 0.62 | |
| | g/l | 38.4 | 32.6 | 44.2 | 2.90 | 5.80 | Ortho Vitros Microslide Systems |
| | g/dl | 3.84 | 3.26 | 4.42 | 0.29 | 0.58 | |
| | g/l | 38.3 | 32.6 | 44.0 | 2.85 | 5.70 | Turbidimetric Assays |
| | g/dl | 3.83 | 3.26 | 4.40 | 0.29 | 0.57 | |
| Alkaline Phosphatase | U/l | 127 | 108 | 146 | 9.50 | 19.00 | p-Nitrophenylphosphate AMP 37°C |
| | U/l | 99 | 84 | 114 | 7.50 | 15.00 | p-Nitrophenylphosphate AMP 30°C |
| | U/l | 81 | 69 | 93 | 6.00 | 12.00 | p-Nitrophenylphosphate AMP 25°C |
| | U/l | 104 | 88 | 120 | 8.00 | 16.00 | Ortho Vitros Microslide Systems 37°C |
| | U/l | 226 | 192 | 260 | 17.00 | 34.00 | Diethanolamine buffer DEA 37°C |
| | U/l | 176 | 150 | 202 | 13.00 | 26.00 | Diethanolamine buffer DEA 30°C |
| | U/l | 144 | 123 | 165 | 10.50 | 21.00 | Diethanolamine buffer DEA 25°C |
| | U/l | 128 | 109 | 147 | 9.50 | 19.00 | AMP optimised to IFCC 37°C |
| | U/l | 100 | 85 | 115 | 7.50 | 15.00 | AMP optimised to IFCC 30°C |
| | U/l | 82 | 70 | 94 | 6.00 | 12.00 | AMP optimised to IFCC 25°C |
| | U/l | 120 | 102 | 138 | 9.00 | 18.00 | AMP optimised to NVKC/SFBC 37°C |
| | U/l | 93 | 79 | 107 | 7.00 | 14.00 | AMP optimised to NVKC/SFBC 30°C |
| | U/l | 77 | 65 | 89 | 6.00 | 12.00 | AMP optimised to NVKC/SFBC 25°C |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| ALT (GPT) | U/l | 45 | 36 | 54 | 4.50 | 9.00 | Ortho Vitros Microslide Systems 37°C |
| | U/l | 43 | 34 | 52 | 4.50 | 9.00 | Tris buffer with P5P 37°C |
| | U/l | 32 | 25 | 39 | 3.50 | 7.00 | Tris buffer with P5P 30°C |
| | U/l | 24 | 19 | 29 | 2.50 | 5.00 | Tris buffer with P5P 25°C |
| | U/l | 36 | 29 | 43 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 27 | 21 | 33 | 3.00 | 6.00 | Tris buffer without P5P 30°C |
| | U/l | 20 | 16 | 24 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| | U/l | 36 | 29 | 43 | 3.50 | 7.00 | Tris buffer SCE 37°C |
| | U/l | 27 | 21 | 33 | 3.00 | 6.00 | Tris buffer SCE 30°C |
| | U/l | 20 | 16 | 24 | 2.00 | 4.00 | Tris buffer SCE 25°C |
| | U/l | 38 | 31 | 45 | 3.50 | 7.00 | Agappe - IFCC 37°C |
| | U/l | 28 | 23 | 33 | 2.50 | 5.00 | Agappe - IFCC 30°C |
| | U/l | 21 | 17 | 25 | 2.00 | 4.00 | Agappe - IFCC 25°C |
| Amylase Pancreatic | U/l | 66 | 56 | 76 | 5.00 | 10.00 | Immunoinhibition EPS substrate 37°C |
| | U/l | 78 | 66 | 90 | 6.00 | 12.00 | Randox liquid stable pNPG7 37°C |
| | U/l | 68 | 58 | 78 | 5.00 | 10.00 | Roche liquid stable pNPG7 37°C |
| Amylase Total | U/l | 92 | 78 | 106 | 7.00 | 14.00 | pNP Maltotrioside substrates 37°C |
| | U/l | 92 | 78 | 106 | 7.00 | 14.00 | Siemens - blocked pNPG7 37°C |
| | U/l | 93 | 79 | 107 | 7.00 | 14.00 | Biotrol - blocked pNPG7 37°C |
| | U/l | 96 | 81 | 111 | 7.50 | 15.00 | I.L. - blocked pNPG7 37°C |
| | U/l | 75 | 64 | 86 | 5.50 | 11.00 | Randox - Ethylidene pNPG7 37°C |
| | U/l | 102 | 87 | 117 | 7.50 | 15.00 | Randox liquid stable pNPG7 37°C |
| | U/l | 90 | 76 | 104 | 7.00 | 14.00 | BM/Roche Colorimetric pNPG7 37°C |
| | U/l | 91 | 78 | 104 | 6.50 | 13.00 | Beckman maltotetraose 37°C |
| | U/l | 98 | 83 | 113 | 7.50 | 15.00 | Siemens - maltopenta/hexaoside 37°C |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Amylase Total | U/l | 101 | 86 | 116 | 7.50 | 15.00 | Siemens 2-chloro-pNP linked substrate 37°C |
| | U/l | 92 | 78 | 106 | 7.00 | 14.00 | Roche Integra 2-chloro-pNPG7 37°C |
| | U/l | 64 | 55 | 73 | 4.50 | 9.00 | Ortho Vitros Microslide Systems 37°C |
| | U/l | 90 | 77 | 103 | 6.50 | 13.00 | Other Roche 2-chloro-pNPG7 37°C |
| | U/l | 90 | 77 | 103 | 6.50 | 13.00 | Roche liquid stable pNPG7 37°C |
| | U/l | 100 | 85 | 115 | 7.50 | 15.00 | Siemens 2-chloro-pNPG3 37°C |
| | U/l | 84 | 71 | 97 | 6.50 | 13.00 | bioMerieux 2-chloro-pNPG3 37°C |
| | U/l | 91 | 78 | 104 | 6.50 | 13.00 | Beckman Coulter - blocked pNPG7 37°C |
| | U/l | 96 | 82 | 110 | 7.00 | 14.00 | Beckman Synchron AMY7 37°C |
| Apolipoprotein A-1 | g/l | 1.06 | 0.87 | 1.25 | 0.10 | 0.19 | Immunoturbidimetric |
| | mg/dl | 106 | 86.9 | 125 | 9.55 | 19.10 | |
| Apolipoprotein B | g/l | 0.61 | 0.50 | 0.72 | 0.06 | 0.11 | Immunoturbidimetric |
| | mg/dl | 60.9 | 49.9 | 71.9 | 5.50 | 11.00 | |
| Acid Phosphatase (non-prostatic) | U/l | 7.13 | 4.78 | 9.48 | 1.18 | 2.35 | 1-Naphthyl Phosphate substrate Kinetic 37°C |
| | U/l | 5.36 | 3.59 | 7.13 | 0.89 | 1.77 | 1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C |
| Acid Phosphatase (Prostatic) | U/l | 7.17 | 4.80 | 9.54 | 1.19 | 2.37 | 1-Naphthyl Phosphate substrate Kinetic 37°C |
| | U/l | 13.6 | 9.11 | 18.1 | 2.25 | 4.49 | 1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C |
| Acid Phosphatase (Total) | U/l | 14.3 | 9.58 | 19.0 | 2.36 | 4.72 | 1-Naphthyl Phosphate substrate Kinetic 37°C |
| | U/l | 19.0 | 12.7 | 25.3 | 3.15 | 6.30 | 1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C |
| AST (GOT) | U/l | 49 | 39 | 59 | 5.00 | 10.00 | Ortho Vitros Microslide visible slide 37°C |
| | U/l | 52 | 42 | 62 | 5.00 | 10.00 | Tris buffer with P5P 37°C |
| | U/l | 35 | 28 | 42 | 3.50 | 7.00 | Tris buffer with P5P 30°C |
| | U/l | 25 | 20 | 30 | 2.50 | 5.00 | Tris buffer with P5P 25°C |
| | U/l | 35 | 28 | 42 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 24 | 19 | 29 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 17 | 13 | 21 | 2.00 | 4.00 | Tris buffer without P5P 25°C |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| AST (GOT) | U/l | 35 | 28 | 42 | 3.50 | 7.00 | Tris buffer SCE 37°C |
| | U/l | 24 | 19 | 29 | 2.50 | 5.00 | Tris buffer SCE 30°C |
| | U/l | 17 | 13 | 21 | 2.00 | 4.00 | Tris buffer SCE 25°C |
| Bile Acids | µmol/l | 26.7 | 21.4 | 32.0 | 2.65 | 5.30 | 4th Generation Colorimetric |
| | µmol/l | 24.1 | 19.3 | 28.9 | 2.40 | 4.80 | 5th Generation Colorimetric |
| Bicarbonate | mmol/l | 13.9 | 11.0 | 16.8 | 1.45 | 2.90 | Colorimetric |
| | mmol/l | 14.4 | 11.4 | 17.4 | 1.50 | 3.00 | Ortho Vitros Microslide Systems |
| | mmol/l | 13.8 | 10.9 | 16.7 | 1.45 | 2.90 | Differential rate pH change |
| | mmol/l | 14.1 | 11.2 | 17.0 | 1.45 | 2.90 | Enzymatic |
| | mmol/l | 13.7 | 10.9 | 16.5 | 1.40 | 2.80 | Ion selective electrode |
| Bilirubin Direct | µmol/l | 21.2 | 16.8 | 25.6 | 2.20 | 4.40 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.24 | 0.983 | 1.50 | 0.13 | 0.26 | |
| | µmol/l | 21.0 | 16.6 | 25.4 | 2.20 | 4.40 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.23 | 0.971 | 1.49 | 0.13 | 0.26 | |
| | µmol/l | 11.8 | 9.34 | 14.3 | 1.23 | 2.46 | Vitros Total Bil - BU |
| | mg/dl | 0.690 | 0.546 | 0.834 | 0.07 | 0.14 | |
| | µmol/l | 20.9 | 16.5 | 25.3 | 2.20 | 4.40 | Roche JG factored |
| | mg/dl | 1.22 | 0.965 | 1.48 | 0.13 | 0.26 | |
| | µmol/l | 20.4 | 16.1 | 24.7 | 2.15 | 4.30 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.19 | 0.942 | 1.44 | 0.12 | 0.25 | |
| | µmol/l | 19.2 | 15.1 | 23.3 | 2.05 | 4.10 | Oxidation to Biliverdin |
| | mg/dl | 1.12 | 0.883 | 1.36 | 0.12 | 0.24 | |
| | µmol/l | 18.5 | 14.6 | 22.4 | 1.95 | 3.90 | Modified Jendrassik |
| | mg/dl | 1.08 | 0.854 | 1.31 | 0.11 | 0.23 | |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Bilirubin Total | µmol/l | 25.2 | 19.9 | 30.5 | 2.65 | 5.30 | Vitros 250/500/700/950 Total Bilirubin |
| | mg/dl | 1.47 | 1.16 | 1.78 | 0.16 | 0.31 | |
| | µmol/l | 26.4 | 20.9 | 31.9 | 2.75 | 5.50 | Vitros 250/500/700/950 Total BUBC |
| | mg/dl | 1.54 | 1.22 | 1.86 | 0.16 | 0.32 | |
| | µmol/l | 37.7 | 29.8 | 45.6 | 3.95 | 7.90 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 2.21 | 1.74 | 2.68 | 0.24 | 0.47 | |
| | µmol/l | 29.8 | 23.5 | 36.1 | 3.15 | 6.30 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.74 | 1.37 | 2.11 | 0.19 | 0.37 | |
| | µmol/l | 29.9 | 23.6 | 36.2 | 3.15 | 6.30 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.75 | 1.38 | 2.12 | 0.19 | 0.37 | |
| | µmol/l | 25.8 | 20.4 | 31.2 | 2.70 | 5.40 | Nitrobenzenediazonium salt |
| | mg/dl | 1.51 | 1.19 | 1.83 | 0.16 | 0.32 | |
| | µmol/l | 27.1 | 21.4 | 32.8 | 2.85 | 5.70 | Diazonium ion |
| | mg/dl | 1.59 | 1.25 | 1.93 | 0.17 | 0.34 | |
| | µmol/l | 30.6 | 24.2 | 37.0 | 3.20 | 6.40 | Oxidation to Biliverdin |
| | mg/dl | 1.79 | 1.42 | 2.16 | 0.19 | 0.37 | |
| | µmol/l | 36.4 | 28.8 | 44.0 | 3.80 | 7.60 | Modified Jendrassik |
| | mg/dl | 2.13 | 1.68 | 2.58 | 0.23 | 0.45 | |
| Calcium | mmol/l | 2.24 | 2.02 | 2.46 | 0.11 | 0.22 | Cresolphthalein complexone |
| | mg/dl | 8.98 | 8.10 | 9.86 | 0.44 | 0.88 | |
| | mmol/l | 2.31 | 2.08 | 2.54 | 0.12 | 0.23 | Ortho Vitros Microslide Systems |
| | mg/dl | 9.26 | 8.34 | 10.2 | 0.46 | 0.92 | |
| | mmol/l | 2.23 | 2.01 | 2.45 | 0.11 | 0.22 | Ion selective electrode |
| | mg/dl | 8.94 | 8.06 | 9.82 | 0.44 | 0.88 | |
| | mmol/l | 2.34 | 2.11 | 2.57 | 0.12 | 0.23 | Methylthymol blue |
| | mg/dl | 9.38 | 8.46 | 10.3 | 0.46 | 0.92 | |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Calcium | mmol/l | 2.28 | 2.05 | 2.51 | 0.12 | 0.23 | Arsenazo III |
| | mg/dl | 9.14 | 8.22 | 10.1 | 0.46 | 0.92 | |
| | mmol/l | 2.27 | 2.04 | 2.50 | 0.12 | 0.23 | NM-BAPTA |
| | mg/dl | 9.10 | 8.18 | 10.0 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 3.77 | 3.28 | 4.26 | 0.25 | 0.49 | Ortho Vitros Microslide Systems |
| | mg/dl | 146 | 127 | 165 | 9.50 | 19.00 | |
| | mmol/l | 4.03 | 3.50 | 4.56 | 0.27 | 0.53 | Cholesterol Oxidase |
| | mg/dl | 156 | 135 | 177 | 10.50 | 21.00 | |
| | mmol/l | 4.12 | 3.58 | 4.66 | 0.27 | 0.54 | Agappe - CHOD-PAP |
| | mg/dl | 159 | 138 | 180 | 10.50 | 21.00 | |
| Chloride | mmol/l | 98.4 | 90.5 | 106 | 3.95 | 7.90 | Colorimetric |
| | mmol/l | 96.5 | 88.8 | 104 | 3.85 | 7.70 | Ortho Vitros Microslide Systems |
| | mmol/l | 94.3 | 86.8 | 102 | 3.75 | 7.50 | ISE indirect |
| | mmol/l | 96.9 | 89.2 | 105 | 3.85 | 7.70 | ISE direct |
| Cholinesterase | U/l | 5750 | 4600 | 6900 | 575.00 | 1150.00 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 167 | 137 | 197 | 15.00 | 30.00 | Ortho Vitros Microslide Systems 37°C |
| | U/l | 190 | 156 | 224 | 17.00 | 34.00 | CK-NAC serum start (DGKC) 37°C |
| | U/l | 119 | 98 | 140 | 10.50 | 21.00 | CK-NAC serum start (DGKC) 30°C |
| | U/l | 81 | 66 | 96 | 7.50 | 15.00 | CK-NAC serum start (DGKC) 25°C |
| | U/l | 187 | 153 | 221 | 17.00 | 34.00 | CK-NAC substrate start (DGKC) 37°C |
| | U/l | 117 | 96 | 138 | 10.50 | 21.00 | CK-NAC substrate start (DGKC) 30°C |
| | U/l | 79 | 65 | 93 | 7.00 | 14.00 | CK-NAC substrate start (DGKC) 25°C |
| | U/l | 190 | 156 | 224 | 17.00 | 34.00 | CK-NAC (IFCC) 37°C |
| | U/l | 119 | 98 | 140 | 10.50 | 21.00 | CK-NAC (IFCC) 30°C |
| | U/l | 81 | 66 | 96 | 7.50 | 15.00 | CK-NAC (IFCC) 25°C |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| CK Total | U/l | 187 | 153 | 221 | 17.00 | 34.00 | Monothioglycerol 37°C |
| | U/l | 117 | 96 | 138 | 10.50 | 21.00 | Monothioglycerol 30°C |
| | U/l | 79 | 65 | 93 | 7.00 | 14.00 | Monothioglycerol 25°C |
| | U/l | 177 | 145 | 209 | 16.00 | 32.00 | Dithioerythritol 37°C |
| | U/l | 111 | 91 | 131 | 10.00 | 20.00 | Dithioerythritol 30°C |
| | U/l | 75 | 62 | 88 | 6.50 | 13.00 | Dithioerythritol 25°C |
| | U/l | 179 | 147 | 211 | 16.00 | 32.00 | Dithioerythritol (DTE) IFCC correlated 37°C |
| | U/l | 112 | 92 | 132 | 10.00 | 20.00 | Dithioerythritol (DTE) IFCC correlated 30°C |
| | U/l | 76 | 62 | 90 | 7.00 | 14.00 | Dithioerythritol (DTE) IFCC correlated 25°C |
| Copper | µmol/l | 16.6 | 13.3 | 19.9 | 1.65 | 3.30 | Atomic absorption |
| | µg/dl | 106 | 84.6 | 127 | 10.70 | 21.40 | |
| | µmol/l | 16.0 | 12.8 | 19.2 | 1.60 | 3.20 | Colorimetric |
| | µg/dl | 102 | 81.4 | 123 | 10.30 | 20.60 | |
| Cortisol | nmol/l | 489 | 367 | 611 | 61.00 | 122.00 | Roche Cobas E411 |
| | µg/dl | 17.6 | 13.2 | 22.0 | 2.20 | 4.40 | |
| Creatinine | µmol/l | 119 | 94.9 | 143 | 12.05 | 24.10 | Alkaline picrate with deproteinization |
| | mg/dl | 1.34 | 1.07 | 1.61 | 0.14 | 0.27 | |
| | µmol/l | 123 | 98.4 | 148 | 12.30 | 24.60 | Alkaline picrate no deproteinization |
| | mg/dl | 1.39 | 1.11 | 1.67 | 0.14 | 0.28 | |
| | µmol/l | 134 | 107 | 161 | 13.50 | 27.00 | Randox Enzymatic UV method |
| | mg/dl | 1.51 | 1.21 | 1.81 | 0.15 | 0.30 | |
| | µmol/l | 126 | 101 | 151 | 12.50 | 25.00 | Creatinine PAP method |
| | mg/dl | 1.42 | 1.14 | 1.70 | 0.14 | 0.28 | |
| | µmol/l | 126 | 101 | 151 | 12.50 | 25.00 | Roche Creatinine Plus |
| | mg/dl | 1.42 | 1.14 | 1.70 | 0.14 | 0.28 | |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Creatinine | µmol/l | 125 | 100 | 150 | 12.50 | 25.00 | Jaffe rate blanked |
| | mg/dl | 1.41 | 1.13 | 1.69 | 0.14 | 0.28 | |
| | µmol/l | 125 | 100 | 150 | 12.50 | 25.00 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.41 | 1.13 | 1.69 | 0.14 | 0.28 | |
| | µmol/l | 119 | 95.1 | 143 | 11.95 | 23.90 | Jaffe rate blanked compensated (-18 µmol/l) |
| | mg/dl | 1.34 | 1.07 | 1.61 | 0.14 | 0.27 | |
| | µmol/l | 124 | 99.2 | 149 | 12.40 | 24.80 | Vitros IDMS Traceable |
| | mg/dl | 1.40 | 1.12 | 1.68 | 0.14 | 0.28 | |
| | µmol/l | 119 | 95.4 | 143 | 11.80 | 23.60 | IDMS traceable |
| | mg/dl | 1.34 | 1.08 | 1.60 | 0.13 | 0.26 | |
| D-3-Hydroxybutyrate | mmol/l | 0.28 | 0.24 | 0.33 | 0.02 | 0.04 | Tris buffer 100mmol pH 8.5 |
| Digoxin | nmol/l | 2.19 | 1.75 | 2.63 | 0.22 | 0.44 | Immunoturbidimetric |
| | ng/ml | 1.71 | 1.37 | 2.05 | 0.17 | 0.34 | |
| Folate | nmol/l | 35.8 | 27.2 | 44.4 | 4.30 | 8.60 | Roche Cobas E411 |
| | ng/ml | 15.8 | 12.0 | 19.6 | 1.90 | 3.80 | |
| Free T4 | pmol/l | 18.1 | 13.6 | 22.6 | 2.25 | 4.50 | Abbott Architect |
| | ng/dl | 1.41 | 1.06 | 1.76 | 0.18 | 0.35 | |
| | pg/ml | 14.1 | 10.6 | 17.6 | 1.75 | 3.50 | Abbott Architect |
| | pmol/l | 18.4 | 13.8 | 23.0 | 2.30 | 4.60 | Siemens Centaur XP/Classic |
| | ng/dl | 1.44 | 1.08 | 1.80 | 0.18 | 0.36 | |
| | pg/ml | 14.4 | 10.8 | 18.0 | 1.80 | 3.60 | Siemens Centaur XP/Classic |
| | pmol/l | 18.5 | 13.9 | 23.1 | 2.30 | 4.60 | Beckman Access |
| | ng/dl | 1.44 | 1.08 | 1.80 | 0.18 | 0.36 | |
| | pg/ml | 14.4 | 10.8 | 18.0 | 1.80 | 3.60 | Beckman Access |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Free T4 | pmol/l | 21.2 | 15.9 | 26.5 | 2.65 | 5.30 | Siemens Immulite 1000 |
| | ng/dl | 1.65 | 1.24 | 2.06 | 0.21 | 0.41 | |
| | pg/ml | 16.5 | 12.4 | 20.6 | 2.05 | 4.10 | Siemens Immulite 1000 |
| | pmol/l | 34.5 | 25.9 | 43.1 | 4.30 | 8.60 | Vitros ECi |
| | ng/dl | 2.69 | 2.02 | 3.36 | 0.34 | 0.67 | |
| | pg/ml | 26.9 | 20.2 | 33.6 | 3.35 | 6.70 | Vitros ECi |
| | pmol/l | 23.1 | 17.3 | 28.9 | 2.90 | 5.80 | Roche Elecsys |
| | ng/dl | 1.80 | 1.35 | 2.25 | 0.23 | 0.45 | |
| | pg/ml | 18.0 | 13.5 | 22.5 | 2.25 | 4.50 | Roche Elecsys |
| | pmol/l | 22.0 | 16.5 | 27.5 | 2.75 | 5.50 | Roche Modular E170 |
| | ng/dl | 1.72 | 1.29 | 2.15 | 0.22 | 0.43 | |
| | pg/ml | 17.2 | 12.9 | 21.5 | 2.15 | 4.30 | Roche Modular E170 |
| | pmol/l | 22.8 | 17.1 | 28.5 | 2.85 | 5.70 | Roche Cobas E411 |
| | ng/dl | 1.78 | 1.33 | 2.23 | 0.23 | 0.45 | |
| | pg/ml | 17.8 | 13.3 | 22.3 | 2.25 | 4.50 | Roche Cobas E411 |
| | pmol/l | 22.2 | 16.7 | 27.7 | 2.75 | 5.50 | Roche Cobas 6000/8000 |
| | ng/dl | 1.73 | 1.30 | 2.16 | 0.22 | 0.43 | |
| | pg/ml | 17.3 | 13.0 | 21.6 | 2.15 | 4.30 | Roche Cobas 6000/8000 |
| Gentamicin | µmol/l | 7.41 | 5.93 | 8.89 | 0.74 | 1.48 | Immunoturbidimetric |
| | µg/ml | 3.54 | 2.83 | 4.25 | 0.36 | 0.71 | |
| gamma-GT | U/l | 52 | 44 | 60 | 4.00 | 8.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 41 | 35 | 47 | 3.00 | 6.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 32 | 27 | 37 | 2.50 | 5.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| | U/l | 68 | 58 | 78 | 5.00 | 10.00 | Ortho Vitros Microslide Systems 37°C |
| | U/l | 47 | 40 | 54 | 3.50 | 7.00 | Gamma glutamyl-4-nitroanilide 37°C |
| | U/l | 37 | 32 | 42 | 2.50 | 5.00 | Gamma glutamyl-4-nitroanilide 30°C |
| | U/l | 29 | 25 | 33 | 2.00 | 4.00 | Gamma glutamyl-4-nitroanilide 25°C |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| gamma-GT | U/l | 57 | 48 | 66 | 4.50 | 9.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 45 | 38 | 52 | 3.50 | 7.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 35 | 30 | 40 | 2.50 | 5.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| | U/l | 51 | 43 | 59 | 4.00 | 8.00 | Agappe - Szasz Kinetic 37°C |
| | U/l | 40 | 34 | 46 | 3.00 | 6.00 | Agappe - Szasz Kinetic 30°C |
| | U/l | 31 | 27 | 35 | 2.00 | 4.00 | Agappe - Szasz Kinetic 25°C |
| | U/l | 60 | 51 | 69 | 4.50 | 9.00 | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 47 | 40 | 54 | 3.50 | 7.00 | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 37 | 31 | 43 | 3.00 | 6.00 | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| GLDH | U/l | 17 | 13 | 21 | 2.00 | 4.00 | Triethanolamine buffer 50 mmol 37°C |
| | U/l | 13 | 10 | 16 | 1.50 | 3.00 | Triethanolamine buffer 50 mmol 30°C |
| | U/l | 11 | 8 | 14 | 1.50 | 3.00 | Triethanolamine buffer 50 mmol 25°C |
| Glucose | mmol/l | 5.90 | 5.02 | 6.78 | 0.44 | 0.88 | Ortho Vitros Microslide Systems |
| | mg/dl | 106 | 90.5 | 122 | 7.75 | 15.50 | |
| | mmol/l | 6.22 | 5.29 | 7.15 | 0.47 | 0.93 | Glucose dehydrogenase |
| | mg/dl | 112 | 95.3 | 129 | 8.35 | 16.70 | |
| | mmol/l | 6.15 | 5.23 | 7.07 | 0.46 | 0.92 | Hexokinase |
| | mg/dl | 111 | 94.2 | 128 | 8.40 | 16.80 | |
| | mmol/l | 6.01 | 5.11 | 6.91 | 0.45 | 0.90 | Oxygen electrode |
| | mg/dl | 108 | 92.1 | 124 | 7.95 | 15.90 | |
| | mmol/l | 6.30 | 5.35 | 7.25 | 0.48 | 0.95 | Glucose oxidase |
| | mg/dl | 114 | 96.4 | 132 | 8.80 | 17.60 | |
| | mmol/l | 6.12 | 5.20 | 7.04 | 0.46 | 0.92 | Agappe - GOD-PAP |
| | mg/dl | 110 | 93.7 | 126 | 8.15 | 16.30 | |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| alpha-HBDH | U/l | 260 | 205 | 315 | 27.50 | 55.00 | Oxobutyrate < 10 mmol/l 37°C |
| | U/l | 196 | 155 | 237 | 20.50 | 41.00 | Oxobutyrate < 10 mmol/l 30°C |
| | U/l | 147 | 116 | 178 | 15.50 | 31.00 | Oxobutyrate < 10 mmol/l 25°C |
| HDL - Cholesterol | mmol/l | 1.35 | 1.14 | 1.56 | 0.11 | 0.21 | Direct HDL PPD |
| | mg/dl | 52.1 | 44.0 | 60.2 | 4.05 | 8.10 | |
| | mmol/l | 1.21 | 1.03 | 1.39 | 0.09 | 0.18 | Direct HDL Immunoseparation |
| | mg/dl | 46.7 | 39.8 | 53.6 | 3.45 | 6.90 | |
| | mmol/l | 1.21 | 1.03 | 1.39 | 0.09 | 0.18 | Vitros Magnetic HDL |
| | mg/dl | 46.7 | 39.8 | 53.6 | 3.45 | 6.90 | |
| | mmol/l | 1.23 | 1.04 | 1.42 | 0.10 | 0.19 | Direct HDL PEGME |
| | mg/dl | 47.5 | 40.1 | 54.9 | 3.70 | 7.40 | |
| | mmol/l | 1.19 | 1.01 | 1.37 | 0.09 | 0.18 | Direct Clearance Method |
| | mg/dl | 45.9 | 39.0 | 52.8 | 3.45 | 6.90 | |
| | mmol/l | 1.21 | 1.03 | 1.39 | 0.09 | 0.18 | Vitros dHDL PTA/MgCl2 direct precipitation |
| | mg/dl | 46.7 | 39.8 | 53.6 | 3.45 | 6.90 | |
| | mmol/l | 1.20 | 1.02 | 1.38 | 0.09 | 0.18 | Direct HDL Roche 3rd generation |
| | mg/dl | 46.3 | 39.4 | 53.2 | 3.45 | 6.90 | |
| | mmol/l | 1.33 | 1.13 | 1.53 | 0.10 | 0.20 | HDL - Ultra |
| | mg/dl | 51.3 | 43.6 | 59.0 | 3.85 | 7.70 | |
| Immunoglobulin A | g/l | 1.81 | 1.36 | 2.26 | 0.23 | 0.45 | Immunoturbidimetric |
| | mg/dl | 181 | 136 | 226 | 22.50 | 45.00 | |
| Immunoglobulin G | g/l | 6.73 | 5.52 | 7.94 | 0.61 | 1.21 | Immunoturbidimetric |
| | mg/dl | 673 | 552 | 794 | 60.50 | 121.00 | |
| Immunoglobulin M | g/l | 0.62 | 0.50 | 0.75 | 0.06 | 0.12 | Immunoturbidimetric |
| | mg/dl | 62.2 | 49.8 | 74.6 | 6.20 | 12.40 | |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Iron | µmol/l | 20.2 | 16.5 | 23.9 | 1.85 | 3.70 | Colorimetric with ppt. |
| | µg/dl | 113 | 92.2 | 134 | 10.40 | 20.80 | |
| | µmol/l | 20.0 | 16.4 | 23.6 | 1.80 | 3.60 | Colorimetric without ppt. |
| | µg/dl | 112 | 91.7 | 132 | 10.15 | 20.30 | |
| | µmol/l | 20.3 | 16.6 | 24.0 | 1.85 | 3.70 | Ortho Vitros Microslide Systems |
| | µg/dl | 113 | 92.8 | 133 | 10.10 | 20.20 | |
| Lactate | mmol/l | 1.52 | 1.24 | 1.80 | 0.14 | 0.28 | Colorimetric Lactate Oxidase |
| | mg/dl | 13.7 | 11.2 | 16.2 | 1.25 | 2.50 | |
| | mmol/l | 1.43 | 1.17 | 1.69 | 0.13 | 0.26 | Ortho Vitros Microslide Systems |
| | mg/dl | 12.9 | 10.5 | 15.3 | 1.20 | 2.40 | |
| | mmol/l | 1.44 | 1.18 | 1.70 | 0.13 | 0.26 | UV LDH |
| | mg/dl | 13.0 | 10.6 | 15.4 | 1.20 | 2.40 | |
| LAP | U/l | 17 | 14 | 20 | 1.50 | 3.00 | NAGEL 37°C |
| LD (LDH) | U/l | 621 | 528 | 714 | 46.50 | 93.00 | Ortho Vitros Microslide Systems 37°C |
| | U/l | 195 | 166 | 224 | 14.50 | 29.00 | L->P 37°C |
| | U/l | 141 | 120 | 162 | 10.50 | 21.00 | L->P 30°C |
| | U/l | 99 | 84 | 114 | 7.50 | 15.00 | L->P 25°C |
| | U/l | 475 | 403 | 547 | 36.00 | 72.00 | P->L Scandinavian & Dutch 37°C |
| | U/l | 343 | 291 | 395 | 26.00 | 52.00 | P->L Scandinavian & Dutch 30°C |
| | U/l | 241 | 204 | 278 | 18.50 | 37.00 | P->L Scandinavian & Dutch 25°C |
| | U/l | 427 | 363 | 491 | 32.00 | 64.00 | P->L German methods 37°C |
| | U/l | 308 | 262 | 354 | 23.00 | 46.00 | P->L German methods 30°C |
| | U/l | 216 | 184 | 248 | 16.00 | 32.00 | P->L German methods 25°C |
| | U/l | 434 | 369 | 499 | 32.50 | 65.00 | P->L SFBC 37°C |
| | U/l | 313 | 266 | 360 | 23.50 | 47.00 | P->L SFBC 30°C |
| | U/l | 220 | 187 | 253 | 16.50 | 33.00 | P->L SFBC 25°C |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| LD (LDH) | U/l | 217 | 185 | 249 | 16.00 | 32.00 | L->P IFCC 37°C |
| | U/l | 157 | 134 | 180 | 11.50 | 23.00 | L->P IFCC 30°C |
| | U/l | 110 | 94 | 126 | 8.00 | 16.00 | L->P IFCC 25°C |
| Lipase | U/l | 37 | 30 | 44 | 3.50 | 7.00 | Other Colorimetric 37°C |
| | U/l | 264 | 212 | 316 | 26.00 | 52.00 | Ortho Vitros Microslide Systems 37°C |
| | U/l | 36 | 29 | 43 | 3.50 | 7.00 | Roche Colorimetric 37°C |
| | U/l | 167 | 134 | 200 | 16.50 | 33.00 | Randox Turbidimetric with colipase 37°C |
| | U/l | 39 | 31 | 47 | 4.00 | 8.00 | Randox Colorimetric 37°C |
| Lithium | mmol/l | 1.25 | 1.10 | 1.40 | 0.08 | 0.15 | Ortho Vitros Microslide Systems |
| | mg/dl | 0.868 | 0.764 | 0.972 | 0.05 | 0.10 | |
| | mmol/l | 1.04 | 0.91 | 1.17 | 0.06 | 0.13 | Flame photometry |
| | mg/dl | 0.722 | 0.635 | 0.809 | 0.04 | 0.09 | |
| | mmol/l | 1.07 | 0.94 | 1.20 | 0.06 | 0.13 | Ion selective electrode |
| | mg/dl | 0.743 | 0.654 | 0.832 | 0.04 | 0.09 | |
| | mmol/l | 1.09 | 0.96 | 1.22 | 0.07 | 0.13 | Spectrophotometric |
| | mg/dl | 0.757 | 0.665 | 0.849 | 0.05 | 0.09 | |
| | mmol/l | 1.09 | 0.96 | 1.22 | 0.07 | 0.13 | Randox Colorimetric |
| | mg/dl | 0.757 | 0.666 | 0.848 | 0.05 | 0.09 | |
| Magnesium | mmol/l | 0.89 | 0.78 | 1.00 | 0.05 | 0.11 | Arsenazo III |
| | mg/dl | 2.16 | 1.90 | 2.42 | 0.13 | 0.26 | |
| | mmol/l | 0.90 | 0.79 | 1.01 | 0.05 | 0.11 | Ortho Vitros Microslide Systems |
| | mg/dl | 2.18 | 1.92 | 2.44 | 0.13 | 0.26 | |
| | mmol/l | 0.93 | 0.82 | 1.04 | 0.06 | 0.11 | Atomic absorption |
| | mg/dl | 2.25 | 1.98 | 2.52 | 0.14 | 0.27 | |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Magnesium | mmol/l | 0.92 | 0.81 | 1.03 | 0.06 | 0.11 | Calmagite |
| | mg/dl | 2.23 | 1.96 | 2.50 | 0.14 | 0.27 | |
| | mmol/l | 0.91 | 0.80 | 1.02 | 0.06 | 0.11 | Xylidyl Blue |
| | mg/dl | 2.22 | 1.95 | 2.49 | 0.14 | 0.27 | |
| | mmol/l | 0.87 | 0.77 | 0.98 | 0.05 | 0.10 | Methylthymol blue |
| | mg/dl | 2.12 | 1.86 | 2.38 | 0.13 | 0.26 | |
| | mmol/l | 0.92 | 0.81 | 1.03 | 0.06 | 0.11 | Chlorphosphonazo III |
| | mg/dl | 2.22 | 1.96 | 2.48 | 0.13 | 0.26 | |
| | mmol/l | 0.89 | 0.78 | 0.99 | 0.05 | 0.11 | Enzymatic |
| | mg/dl | 2.15 | 1.89 | 2.41 | 0.13 | 0.26 | |
| NEFA | mmol/l | 1.52 | 1.29 | 1.75 | 0.12 | 0.23 | Colorimetric |
| Osmolality | mOsm/kg | 282 | 225 | 339 | 28.50 | 57.00 | Calculated |
| | mOsm/kg | 297 | 237 | 357 | 30.00 | 60.00 | Freezing point depression |
| Paracetamol | mmol/l | 0.07 | 0.06 | 0.09 | 0.01 | 0.02 | Colorimetric |
| | mg/l | 11.0 | 8.78 | 13.2 | 1.11 | 2.22 | |
| Phosphate Inorganic | mmol/l | 1.52 | 1.29 | 1.75 | 0.12 | 0.23 | Ortho Vitros Microslide Systems |
| | mg/dl | 4.71 | 4.00 | 5.42 | 0.36 | 0.71 | |
| | mmol/l | 1.42 | 1.21 | 1.63 | 0.11 | 0.21 | Phosphomolybdate enzymatic |
| | mg/dl | 4.40 | 3.75 | 5.05 | 0.33 | 0.65 | |
| | mmol/l | 1.40 | 1.19 | 1.61 | 0.11 | 0.21 | Phosphomolybdate UV |
| | mg/dl | 4.34 | 3.69 | 4.99 | 0.33 | 0.65 | |
| Potassium | mmol/l | 4.01 | 3.69 | 4.33 | 0.16 | 0.32 | Ortho Vitros Microslide Systems |
| | mmol/l | 4.04 | 3.72 | 4.36 | 0.16 | 0.32 | Enzymatic |
| | mmol/l | 3.95 | 3.63 | 4.27 | 0.16 | 0.32 | Flame photometry |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Potassium | mmol/l | 3.90 | 3.59 | 4.21 | 0.16 | 0.31 | ISE method - direct |
| | mmol/l | 3.95 | 3.63 | 4.27 | 0.16 | 0.32 | ISE method - indirect |
| Protein Total | g/l | 57.9 | 46.3 | 69.5 | 5.80 | 11.60 | Ortho Vitros Microslide Systems |
| | g/dl | 5.79 | 4.63 | 6.95 | 0.58 | 1.16 | |
| | g/l | 58.0 | 46.4 | 69.6 | 5.80 | 11.60 | Biuret reaction end point |
| | g/dl | 5.80 | 4.64 | 6.96 | 0.58 | 1.16 | |
| | g/l | 56.5 | 45.2 | 67.8 | 5.65 | 11.30 | Biuret reaction kinetic |
| | g/dl | 5.65 | 4.52 | 6.78 | 0.57 | 1.13 | |
| PSA Total | ng/ml = | 11.2 | 8.42 | 14.0 | 1.39 | 2.78 | Tosoh AIA360 |
| | ng/ml = | 15.7 | 11.8 | 19.6 | 1.95 | 3.90 | Roche Elecsys Modular E170 |
| | ng/ml = | 16.2 | 12.1 | 20.3 | 2.05 | 4.10 | Beckman Access standardised to Hybritech |
| | ng/ml = | 14.5 | 10.9 | 18.1 | 1.80 | 3.60 | bioMerieux VIDAS TPSA |
| | ng/ml = | 13.1 | 9.84 | 16.4 | 1.63 | 3.26 | Siemens Centaur XP/Classic |
| | ng/ml = | 13.8 | 10.4 | 17.2 | 1.70 | 3.40 | Abbott Architect |
| | ng/ml = | 16.7 | 12.6 | 20.8 | 2.05 | 4.10 | Cobas E411 |
| | ng/ml = | 16.8 | 12.6 | 21.0 | 2.10 | 4.20 | Roche Cobas 6000/8000 |
| | ng/ml = | 16.4 | 12.3 | 20.5 | 2.05 | 4.10 | Ortho Vitros 3600/5600/ECi PSA II |
| Salicylate | mmol/l | 0.38 | 0.30 | 0.45 | 0.04 | 0.08 | Enzymatic |
| | mg/dl | 5.22 | 4.17 | 6.27 | 0.53 | 1.05 | |
| Sodium | mmol/l | 139 | 132 | 146 | 3.50 | 7.00 | Ortho Vitros Microslide Systems |
| | mmol/l | 141 | 134 | 148 | 3.50 | 7.00 | Enzymatic |
| | mmol/l | 140 | 133 | 147 | 3.50 | 7.00 | Flame photometry |
| | mmol/l | 138 | 131 | 145 | 3.50 | 7.00 | ISE method - direct |
| | mmol/l | 139 | 132 | 146 | 3.50 | 7.00 | ISE method - indirect |
| Theophylline | µmol/l | 28.0 | 22.4 | 33.6 | 2.80 | 5.60 | Immunoturbidimetric |
| | µg/ml | 5.05 | 4.04 | 6.06 | 0.51 | 1.01 | |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Thyroid Stimulating Hormone | µU/ml = | 1.05 | 0.84 | 1.26 | 0.11 | 0.21 | Abbott Architect |
| | µU/ml = | 1.26 | 1.01 | 1.51 | 0.13 | 0.25 | Beckman Access hyperTSH 3rd Generation |
| | µU/ml = | 1.48 | 1.18 | 1.78 | 0.15 | 0.30 | bioMerieux VIDAS TSH |
| | µU/ml = | 1.39 | 1.11 | 1.67 | 0.14 | 0.28 | Siemens Immulite 1000 |
| | µU/ml = | 1.35 | 1.08 | 1.62 | 0.14 | 0.27 | Vitros ECi |
| | µU/ml = | 1.49 | 1.19 | 1.79 | 0.15 | 0.30 | Roche Elecsys |
| | µU/ml = | 1.54 | 1.23 | 1.85 | 0.16 | 0.31 | Roche Modular E170 |
| | µU/ml = | 1.53 | 1.22 | 1.84 | 0.16 | 0.31 | Roche Cobas E411 |
| | µU/ml = | 1.51 | 1.21 | 1.81 | 0.15 | 0.30 | Roche Cobas 6000/8000 |
| | µU/ml = | 1.23 | 0.99 | 1.47 | 0.12 | 0.24 | Siemens Centaur XP/Classic TSH3-Ultra |
| TIBC | µmol/l | 44.3 | 35.0 | 53.6 | 4.65 | 9.30 | Removal of excess free iron |
| | µg/dl | 248 | 196 | 300 | 26.00 | 52.00 | |
| | µmol/l | 44.2 | 35.0 | 53.4 | 4.60 | 9.20 | FE+UIBC(saturation with iron) |
| | µg/dl | 247 | 196 | 298 | 25.50 | 51.00 | |
| | µmol/l | 45.7 | 36.1 | 55.3 | 4.80 | 9.60 | Direct Colorimetric |
| | µg/dl | 255 | 202 | 308 | 26.50 | 53.00 | |
| | µmol/l | 49.3 | 38.9 | 59.7 | 5.20 | 10.40 | Randox Direct |
| | µg/dl | 276 | 217 | 335 | 29.50 | 59.00 | |
| Tobramycin | µmol/l | 5.60 | 4.48 | 6.72 | 0.56 | 1.12 | Immunoturbidimetric |
| | µg/ml | 2.62 | 2.10 | 3.14 | 0.26 | 0.52 | |
| Total T3 | nmol/l | 2.60 | 1.95 | 3.25 | 0.33 | 0.65 | Abbott Architect |
| | ng/ml | 1.69 | 1.27 | 2.11 | 0.21 | 0.42 | |
| | ng/dl | 169 | 127 | 211 | 21.00 | 42.00 | Abbott Architect |
| | nmol/l | 2.63 | 1.97 | 3.29 | 0.33 | 0.66 | BioMerieux Vidas |
| | ng/ml | 1.71 | 1.28 | 2.14 | 0.22 | 0.43 | |
| | ng/dl | 171 | 128 | 214 | 21.50 | 43.00 | BioMerieux Vidas |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Total T3 | nmol/l | 3.93 | 2.95 | 4.91 | 0.49 | 0.98 | Vitros ECi |
| | ng/ml | 2.56 | 1.92 | 3.20 | 0.32 | 0.64 | |
| | ng/dl | 256 | 192 | 320 | 32.00 | 64.00 | Vitros ECi |
| | nmol/l | 2.98 | 2.24 | 3.72 | 0.37 | 0.74 | Roche Cobas E411 |
| | ng/ml | 1.94 | 1.46 | 2.42 | 0.24 | 0.48 | |
| | ng/dl | 194 | 146 | 242 | 24.00 | 48.00 | Roche Cobas E411 |
| | nmol/l | 2.61 | 1.96 | 3.26 | 0.33 | 0.65 | Roche Cobas 6000/8000 |
| | ng/ml | 1.70 | 1.28 | 2.12 | 0.21 | 0.42 | |
| | ng/dl | 170 | 128 | 212 | 21.00 | 42.00 | Roche Cobas 6000/8000 |
| Total T4 | nmol/l | 86.6 | 64.9 | 108 | 10.85 | 21.70 | Abbott Architect |
| | µg/dl | 6.75 | 5.06 | 8.44 | 0.85 | 1.69 | |
| | ng/ml | 67.5 | 50.6 | 84.4 | 8.45 | 16.90 | Abbott Architect |
| | nmol/l | 85.6 | 64.2 | 107 | 10.70 | 21.40 | BioMerieux Vidas |
| | µg/dl | 6.68 | 5.01 | 8.35 | 0.84 | 1.67 | |
| | ng/ml | 66.8 | 50.1 | 83.5 | 8.35 | 16.70 | BioMerieux Vidas |
| | nmol/l | 91.8 | 68.8 | 115 | 11.50 | 23.00 | Siemens Immulite 1000 |
| | µg/dl | 7.16 | 5.37 | 8.95 | 0.90 | 1.79 | |
| | ng/ml | 71.6 | 53.7 | 89.5 | 8.95 | 17.90 | Siemens Immulite 1000 |
| | nmol/l | 92.0 | 69.0 | 115 | 11.50 | 23.00 | Roche Cobas E411 |
| | µg/dl | 7.18 | 5.38 | 8.98 | 0.90 | 1.80 | |
| | ng/ml | 71.8 | 53.8 | 89.8 | 9.00 | 18.00 | Roche Cobas E411 |
| Transferrin | g/l | 1.96 | 1.57 | 2.35 | 0.20 | 0.39 | Immunoturbidimetric |
| | mg/dl | 196 | 157 | 235 | 19.50 | 39.00 | |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Triglycerides | mmol/l | 1.06 | 0.89 | 1.23 | 0.08 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 93.8 | 78.9 | 109 | 7.45 | 14.90 | |
| | mmol/l | 1.04 | 0.88 | 1.21 | 0.08 | 0.17 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 92.0 | 77.4 | 107 | 7.30 | 14.60 | |
| | mmol/l | 1.07 | 0.90 | 1.24 | 0.09 | 0.17 | L/G Kinase EP. no correction |
| | mg/dl | 94.7 | 79.3 | 110 | 7.70 | 15.40 | |
| | mmol/l | 1.09 | 0.92 | 1.26 | 0.09 | 0.17 | L/G kinase EP. 0.11 mmol/l correction |
| | mg/dl | 96.5 | 81.2 | 112 | 7.65 | 15.30 | |
| | mmol/l | 1.01 | 0.85 | 1.17 | 0.08 | 0.16 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 89.4 | 75.0 | 104 | 7.20 | 14.40 | |
| | mmol/l | 1.16 | 0.98 | 1.34 | 0.09 | 0.18 | Ortho Vitros Microslide Systems |
| | mg/dl | 103 | 86.6 | 119 | 8.20 | 16.40 | |
| | mmol/l | 0.97 | 0.81 | 1.12 | 0.08 | 0.15 | Lipase/GPO-PAP free glycerol correction |
| | mg/dl | 85.4 | 71.8 | 99.0 | 6.80 | 13.60 | |
| Uric Acid (Urate) | mmol/l | 0.33 | 0.29 | 0.37 | 0.02 | 0.04 | Ortho Vitros Microslide Systems |
| | mg/dl | 5.53 | 4.80 | 6.26 | 0.37 | 0.73 | |
| | mmol/l | 0.34 | 0.30 | 0.39 | 0.02 | 0.04 | Uricase catalase 340nm |
| | mg/dl | 5.76 | 5.02 | 6.50 | 0.37 | 0.74 | |
| | mmol/l | 0.34 | 0.30 | 0.39 | 0.02 | 0.04 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.78 | 5.04 | 6.52 | 0.37 | 0.74 | |
| | mmol/l | 0.34 | 0.30 | 0.38 | 0.02 | 0.04 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.71 | 4.97 | 6.45 | 0.37 | 0.74 | |
| | mmol/l | 0.34 | 0.29 | 0.38 | 0.02 | 0.04 | Spectrophotometric at 280-290 |
| | mg/dl | 5.64 | 4.91 | 6.37 | 0.37 | 0.73 | |
| | mmol/l | 0.35 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.86 | 5.11 | 6.61 | 0.38 | 0.75 | |



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## MEAN OF ALL INSTRUMENTS

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Urea | mmol/l | 6.85 | 5.82 | 7.88 | 0.52 | 1.03 | Ortho Vitros Microslide Systems |
| | mg/dl | 41.2 | 35.0 | 47.4 | 3.10 | 6.20 | |
| | mmol/l | 7.32 | 6.22 | 8.42 | 0.55 | 1.10 | Urease end point |
| | mg/dl | 44.0 | 37.4 | 50.6 | 3.30 | 6.60 | |
| | mmol/l | 7.29 | 6.20 | 8.38 | 0.55 | 1.09 | Urease kinetic |
| | mg/dl | 43.8 | 37.3 | 50.3 | 3.25 | 6.50 | |
| | mmol/l | 7.16 | 6.09 | 8.23 | 0.54 | 1.07 | Urease hypochlorite |
| | mg/dl | 43.0 | 36.6 | 49.4 | 3.20 | 6.40 | |
| | mmol/l | 7.25 | 6.16 | 8.34 | 0.55 | 1.09 | Agappe - Urease GLDH |
| | mg/dl | 43.6 | 37.0 | 50.2 | 3.30 | 6.60 | |
| | mmol/l | 7.53 | 6.40 | 8.66 | 0.57 | 1.13 | Urease Berthelot |
| | mg/dl | 45.3 | 38.5 | 52.1 | 3.40 | 6.80 | |
| | mmol/l | 7.29 | 6.20 | 8.38 | 0.55 | 1.09 | BUN |
| | mg/dl | 20.5 | 17.4 | 23.6 | 1.55 | 3.10 | |
| Vitamin B12 | pmol/l | 523 | 418 | 628 | 52.50 | 105.00 | Roche Cobas E411 |
| | pg/ml | 709 | 566 | 852 | 71.50 | 143.00 | |
| Zinc | µmol/l | 22.0 | 17.6 | 26.4 | 2.20 | 4.40 | Atomic absorption |
| | µg/dl | 144 | 115 | 173 | 14.50 | 29.00 | |
| | µmol/l | 23.7 | 19.0 | 28.4 | 2.35 | 4.70 | Colorimetric with deproteinisation |
| | µg/dl | 155 | 124 | 186 | 15.50 | 31.00 | |



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## MEAN OF ALL INSTRUMENTS (Elec.)

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| alpha-1-globulin | | 6.3 | 4.8 | 7.8 | 0.76 | 1.51 | % of total Protein (Beckman Capillary) |
| alpha-2-globulin | | 6.7 | 5.1 | 8.3 | 0.81 | 1.61 | % of total Protein (Beckman Capillary) |
| Albumin (electrophoresis) | | 65.3 | 58.8 | 71.8 | 3.25 | 6.50 | % of total Protein (Beckman Capillary) |
| beta-globulin | | 9.6 | 7.3 | 11.9 | 1.15 | 2.30 | % of total Protein (Beckman Capillary) |
| gamma-globulin | | 12.1 | 9.2 | 15.0 | 1.45 | 2.90 | % of total Protein (Beckman Capillary) |



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## MINDRAY BS-200/300/400

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 41.9 | 35.6 | 48.2 | 3.15 | 6.30 | Bromocresol Green |
| | g/dl | 4.19 | 3.56 | 4.82 | 0.32 | 0.63 | |
| Alkaline Phosphatase | U/l | 128 | 108 | 148 | 10.00 | 20.00 | AMP optimised to IFCC 37°C |
| | U/l | 100 | 84 | 116 | 8.00 | 16.00 | AMP optimised to IFCC 30°C |
| | U/l | 82 | 69 | 95 | 6.50 | 13.00 | AMP optimised to IFCC 25°C |
| ALT (GPT) | U/l | 38 | 31 | 45 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 28 | 23 | 33 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 21 | 17 | 25 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| AST (GOT) | U/l | 38 | 31 | 45 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 26 | 21 | 31 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 18 | 15 | 21 | 1.50 | 3.00 | Tris buffer without P5P 25°C |
| Bilirubin Total | µmol/l | 21.1 | 16.7 | 25.5 | 2.20 | 4.40 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.23 | 0.977 | 1.48 | 0.13 | 0.25 | |
| Calcium | mmol/l | 2.32 | 2.08 | 2.56 | 0.12 | 0.24 | Cresolphthalein complexone |
| | mg/dl | 9.30 | 8.34 | 10.3 | 0.48 | 0.96 | |
| | mmol/l | 2.33 | 2.10 | 2.56 | 0.12 | 0.23 | Arsenazo III |
| | mg/dl | 9.34 | 8.42 | 10.3 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 4.06 | 3.53 | 4.59 | 0.27 | 0.53 | Cholesterol Oxidase |
| | mg/dl | 157 | 136 | 178 | 10.50 | 21.00 | |
| CK Total | U/l | 187 | 154 | 220 | 16.50 | 33.00 | CK-NAC (IFCC) 37°C |
| | U/l | 117 | 96 | 138 | 10.50 | 21.00 | CK-NAC (IFCC) 30°C |
| | U/l | 79 | 65 | 93 | 7.00 | 14.00 | CK-NAC (IFCC) 25°C |



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## MINDRAY BS-200/300/400

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Creatinine | µmol/l | 116 | 93.1 | 139 | 11.45 | 22.90 | Alkaline picrate with deproteinization |
| | mg/dl | 1.31 | 1.05 | 1.57 | 0.13 | 0.26 | |
| | µmol/l | 113 | 90.6 | 135 | 11.20 | 22.40 | Alkaline picrate no deproteinization |
| | mg/dl | 1.28 | 1.02 | 1.54 | 0.13 | 0.26 | |
| | µmol/l | 118 | 94.1 | 142 | 11.95 | 23.90 | Randox Enzymatic UV method |
| | mg/dl | 1.33 | 1.06 | 1.60 | 0.14 | 0.27 | |
| | µmol/l | 127 | 101 | 153 | 13.00 | 26.00 | Jaffe rate blanked |
| | mg/dl | 1.44 | 1.14 | 1.74 | 0.15 | 0.30 | |
| gamma-GT | U/l | 54 | 46 | 62 | 4.00 | 8.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 43 | 36 | 50 | 3.50 | 7.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 33 | 28 | 38 | 2.50 | 5.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.59 | 5.60 | 7.58 | 0.50 | 0.99 | Glucose oxidase |
| | mg/dl | 119 | 101 | 137 | 9.00 | 18.00 | |
| HDL - Cholesterol | mmol/l | 1.27 | 1.08 | 1.46 | 0.10 | 0.19 | Direct HDL PPD |
| | mg/dl | 49.0 | 41.7 | 56.3 | 3.65 | 7.30 | |
| | mmol/l | 1.25 | 1.06 | 1.44 | 0.10 | 0.19 | Direct Clearance Method |
| | mg/dl | 48.3 | 40.9 | 55.7 | 3.70 | 7.40 | |
| Iron | µmol/l | 20.5 | 16.8 | 24.2 | 1.85 | 3.70 | Colorimetric without ppt. |
| | µg/dl | 115 | 93.9 | 136 | 10.55 | 21.10 | |
| LD (LDH) | U/l | 431 | 366 | 496 | 32.50 | 65.00 | P->L SFBC 37°C |
| | U/l | 311 | 264 | 358 | 23.50 | 47.00 | P->L SFBC 30°C |
| | U/l | 219 | 186 | 252 | 16.50 | 33.00 | P->L SFBC 25°C |
| | U/l | 221 | 188 | 254 | 16.50 | 33.00 | L->P IFCC 37°C |
| | U/l | 160 | 136 | 184 | 12.00 | 24.00 | L->P IFCC 30°C |
| | U/l | 112 | 95 | 129 | 8.50 | 17.00 | L->P IFCC 25°C |



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## MINDRAY BS-200/300/400

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Magnesium | mmol/l | 0.89 | 0.79 | 1.00 | 0.05 | 0.11 | Xylidyl Blue |
| | mg/dl | 2.17 | 1.91 | 2.43 | 0.13 | 0.26 | |
| Phosphate Inorganic | mmol/l | 1.58 | 1.34 | 1.82 | 0.12 | 0.24 | Phosphomolybdate UV |
| | mg/dl | 4.90 | 4.15 | 5.65 | 0.38 | 0.75 | |
| Potassium | mmol/l | 3.92 | 3.61 | 4.23 | 0.16 | 0.31 | ISE method - direct |
| Protein Total | g/l | 59.1 | 47.3 | 70.9 | 5.90 | 11.80 | Biuret reaction end point |
| | g/dl | 5.91 | 4.73 | 7.09 | 0.59 | 1.18 | |
| Sodium | mmol/l | 141 | 134 | 148 | 3.50 | 7.00 | ISE method - direct |
| Triglycerides | mmol/l | 1.10 | 0.92 | 1.28 | 0.09 | 0.18 | Lipase/GPO-PAP no correction |
| | mg/dl | 97.4 | 81.4 | 113 | 8.00 | 16.00 | |
| Uric Acid (Urate) | mmol/l | 0.39 | 0.34 | 0.44 | 0.03 | 0.05 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 6.47 | 5.63 | 7.31 | 0.42 | 0.84 | |
| | mmol/l | 0.39 | 0.34 | 0.44 | 0.03 | 0.05 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 6.55 | 5.71 | 7.39 | 0.42 | 0.84 | |
| | mmol/l | 0.35 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.83 | 5.07 | 6.59 | 0.38 | 0.76 | |
| Urea | mmol/l | 7.37 | 6.27 | 8.47 | 0.55 | 1.10 | Urease end point |
| | mg/dl | 44.3 | 37.7 | 50.9 | 3.30 | 6.60 | |
| | mmol/l | 7.56 | 6.43 | 8.69 | 0.57 | 1.13 | Urease kinetic |
| | mg/dl | 45.4 | 38.6 | 52.2 | 3.40 | 6.80 | |
| | mmol/l | 7.33 | 6.23 | 8.43 | 0.55 | 1.10 | Urease hypochlorite |
| | mg/dl | 44.1 | 37.4 | 50.8 | 3.35 | 6.70 | |
| | mmol/l | 7.56 | 6.43 | 8.69 | 0.57 | 1.13 | BUN |
| | mg/dl | 21.2 | 18.0 | 24.4 | 1.60 | 3.20 | |



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## PRESTIGE 24i

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 40.7 | 34.6 | 46.8 | 3.05 | 6.10 | Bromocresol Green |
| | g/dl | 4.07 | 3.46 | 4.68 | 0.31 | 0.61 | |
| Alkaline Phosphatase | U/l | 178 | 151 | 205 | 13.50 | 27.00 | Diethanolamine buffer DEA 37°C |
| | U/l | 139 | 118 | 160 | 10.50 | 21.00 | Diethanolamine buffer DEA 30°C |
| | U/l | 114 | 96 | 132 | 9.00 | 18.00 | Diethanolamine buffer DEA 25°C |
| | U/l | 120 | 102 | 138 | 9.00 | 18.00 | AMP optimised to IFCC 37°C |
| | U/l | 93 | 79 | 107 | 7.00 | 14.00 | AMP optimised to IFCC 30°C |
| | U/l | 77 | 65 | 89 | 6.00 | 12.00 | AMP optimised to IFCC 25°C |
| ALT (GPT) | U/l | 38 | 30 | 46 | 4.00 | 8.00 | Tris buffer without P5P 37°C |
| | U/l | 28 | 22 | 34 | 3.00 | 6.00 | Tris buffer without P5P 30°C |
| | U/l | 21 | 17 | 25 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| AST (GOT) | U/l | 37 | 30 | 44 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 25 | 20 | 30 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 18 | 14 | 22 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| Bilirubin Direct | µmol/l | 20.1 | 15.9 | 24.3 | 2.10 | 4.20 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.18 | 0.930 | 1.43 | 0.13 | 0.25 | |
| Bilirubin Total | µmol/l | 29.2 | 23.1 | 35.3 | 3.05 | 6.10 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.71 | 1.35 | 2.07 | 0.18 | 0.36 | |
| Calcium | mmol/l | 2.32 | 2.09 | 2.55 | 0.12 | 0.23 | Arsenazo III |
| | mg/dl | 9.30 | 8.38 | 10.2 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 4.13 | 3.59 | 4.67 | 0.27 | 0.54 | Cholesterol Oxidase |
| | mg/dl | 159 | 139 | 179 | 10.00 | 20.00 | |



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## PRESTIGE 24i

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| CK Total | U/l | 194 | 159 | 229 | 17.50 | 35.00 | CK-NAC (IFCC) 37°C |
| | U/l | 121 | 100 | 142 | 10.50 | 21.00 | CK-NAC (IFCC) 30°C |
| | U/l | 82 | 68 | 96 | 7.00 | 14.00 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 114 | 91.4 | 137 | 11.30 | 22.60 | Alkaline picrate no deproteinization |
| | mg/dl | 1.29 | 1.03 | 1.55 | 0.13 | 0.26 | |
| | µmol/l | 132 | 105 | 159 | 13.50 | 27.00 | Creatinine PAP method |
| | mg/dl | 1.49 | 1.19 | 1.79 | 0.15 | 0.30 | |
| Glucose | mmol/l | 6.59 | 5.60 | 7.58 | 0.50 | 0.99 | Glucose oxidase |
| | mg/dl | 119 | 101 | 137 | 9.00 | 18.00 | |
| HDL - Cholesterol | mmol/l | 1.13 | 0.96 | 1.30 | 0.09 | 0.17 | Direct HDL Immunoseparation |
| | mg/dl | 43.6 | 37.0 | 50.2 | 3.30 | 6.60 | |
| Phosphate Inorganic | mmol/l | 1.39 | 1.18 | 1.60 | 0.11 | 0.21 | Phosphomolybdate UV |
| | mg/dl | 4.31 | 3.66 | 4.96 | 0.33 | 0.65 | |
| Protein Total | g/l | 55.6 | 44.5 | 66.7 | 5.55 | 11.10 | Biuret reaction end point |
| | g/dl | 5.56 | 4.45 | 6.67 | 0.56 | 1.11 | |
| Triglycerides | mmol/l | 1.09 | 0.92 | 1.26 | 0.09 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 96.5 | 81.2 | 112 | 7.65 | 15.30 | |
| Uric Acid (Urate) | mmol/l | 0.34 | 0.29 | 0.38 | 0.02 | 0.04 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.68 | 4.94 | 6.42 | 0.37 | 0.74 | |
| Urea | mmol/l | 7.13 | 6.06 | 8.20 | 0.54 | 1.07 | Urease kinetic |
| | mg/dl | 42.9 | 36.4 | 49.4 | 3.25 | 6.50 | |
| | mmol/l | 7.13 | 6.06 | 8.20 | 0.54 | 1.07 | BUN |
| | mg/dl | 20.0 | 17.0 | 23.0 | 1.50 | 3.00 | |



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## Roche Cobas 6000 c501 e601

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 41.2 | 35.0 | 47.4 | 3.10 | 6.20 | Bromocresol Green |
| | g/dl | 4.12 | 3.50 | 4.74 | 0.31 | 0.62 | |
| | g/l | 41.1 | 34.9 | 47.3 | 3.10 | 6.20 | Bromocresol Purple |
| | g/dl | 4.11 | 3.49 | 4.73 | 0.31 | 0.62 | |
| | g/l | 38.8 | 33.0 | 44.6 | 2.90 | 5.80 | Turbidimetric Assays |
| | g/dl | 3.88 | 3.30 | 4.46 | 0.29 | 0.58 | |
| Alkaline Phosphatase | U/l | 96 | 82 | 110 | 7.00 | 14.00 | Roche Integra AMP buffer 37°C |
| | U/l | 75 | 64 | 86 | 5.50 | 11.00 | Roche Integra AMP buffer 30°C |
| | U/l | 61 | 52 | 70 | 4.50 | 9.00 | Roche Integra AMP buffer 25°C |
| ALT (GPT) | U/l | 33 | 27 | 39 | 3.00 | 6.00 | Tris buffer without P5P 37°C |
| | U/l | 24 | 20 | 28 | 2.00 | 4.00 | Tris buffer without P5P 30°C |
| | U/l | 19 | 15 | 23 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| Amylase Pancreatic | U/l | 67 | 57 | 77 | 5.00 | 10.00 | Randox EPS Liquid and BM/Roche EPS Liquid 37°C |
| Amylase Total | U/l | 91 | 77 | 105 | 7.00 | 14.00 | Roche Integra 2-chloro-pNPG7 37°C |
| | U/l | 90 | 76 | 104 | 7.00 | 14.00 | Other Roche 2-chloro-pNPG7 37°C |
| | U/l | 90 | 76 | 104 | 7.00 | 14.00 | Roche liquid stable pNPG7 37°C |
| AST (GOT) | U/l | 33 | 26 | 40 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 22 | 18 | 26 | 2.00 | 4.00 | Tris buffer without P5P 30°C |
| | U/l | 16 | 12 | 20 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| Bile Acids | µmol/l | 25.7 | 20.5 | 30.9 | 2.60 | 5.20 | Enzymatic Colorimetric |
| Bicarbonate | mmol/l | 13.8 | 10.9 | 16.7 | 1.45 | 2.90 | Colorimetric |



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## Roche Cobas 6000 c501 e601

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Bicarbonate | mmol/l | 14.1 | 11.2 | 17.0 | 1.45 | 2.90 | Enzymatic |
| Bilirubin Direct | µmol/l | 21.0 | 16.6 | 25.4 | 2.20 | 4.40 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.23 | 0.971 | 1.49 | 0.13 | 0.26 | |
| | µmol/l | 21.0 | 16.6 | 25.4 | 2.20 | 4.40 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.23 | 0.971 | 1.49 | 0.13 | 0.26 | |
| | µmol/l | 21.4 | 16.9 | 25.9 | 2.25 | 4.50 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.25 | 0.989 | 1.51 | 0.13 | 0.26 | |
| Bilirubin Total | µmol/l | 27.1 | 21.4 | 32.8 | 2.85 | 5.70 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.59 | 1.25 | 1.93 | 0.17 | 0.34 | |
| | µmol/l | 26.8 | 21.2 | 32.4 | 2.80 | 5.60 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.57 | 1.24 | 1.90 | 0.17 | 0.33 | |
| | µmol/l | 26.8 | 21.2 | 32.4 | 2.80 | 5.60 | Diazonium ion |
| | mg/dl | 1.57 | 1.24 | 1.90 | 0.17 | 0.33 | |
| Calcium | mmol/l | 2.27 | 2.04 | 2.50 | 0.12 | 0.23 | Cresolphthalein complexone |
| | mg/dl | 9.10 | 8.18 | 10.0 | 0.46 | 0.92 | |
| | mmol/l | 2.28 | 2.05 | 2.51 | 0.12 | 0.23 | NM-BAPTA |
| | mg/dl | 9.14 | 8.22 | 10.1 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 4.05 | 3.52 | 4.58 | 0.27 | 0.53 | Cholesterol Oxidase |
| | mg/dl | 156 | 136 | 176 | 10.00 | 20.00 | |
| Chloride | mmol/l | 90.3 | 83.1 | 97.5 | 3.60 | 7.20 | ISE indirect |
| Cholinesterase | U/l | 5634 | 4507 | 6761 | 563.50 | 1127.00 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 197 | 161 | 233 | 18.00 | 36.00 | CK-NAC substrate start (DGKC) 37°C |
| | U/l | 123 | 101 | 145 | 11.00 | 22.00 | CK-NAC substrate start (DGKC) 30°C |
| | U/l | 84 | 68 | 100 | 8.00 | 16.00 | CK-NAC substrate start (DGKC) 25°C |
| | U/l | 196 | 161 | 231 | 17.50 | 35.00 | CK-NAC (IFCC) 37°C |
| | U/l | 123 | 101 | 145 | 11.00 | 22.00 | CK-NAC (IFCC) 30°C |
| | U/l | 83 | 68 | 98 | 7.50 | 15.00 | CK-NAC (IFCC) 25°C |



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## Roche Cobas 6000 c501 e601

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Creatinine | µmol/l | 127 | 101 | 153 | 13.00 | 26.00 | Alkaline picrate no deproteinization |
| | mg/dl | 1.44 | 1.14 | 1.74 | 0.15 | 0.30 | |
| | µmol/l | 129 | 103 | 155 | 13.00 | 26.00 | Randox Enzymatic UV method |
| | mg/dl | 1.46 | 1.16 | 1.76 | 0.15 | 0.30 | |
| | µmol/l | 129 | 103 | 155 | 13.00 | 26.00 | Roche Creatinine Plus |
| | mg/dl | 1.46 | 1.16 | 1.76 | 0.15 | 0.30 | |
| | µmol/l | 126 | 100 | 152 | 13.00 | 26.00 | Jaffe rate blanked |
| | mg/dl | 1.42 | 1.13 | 1.71 | 0.15 | 0.29 | |
| | µmol/l | 124 | 99.3 | 149 | 12.35 | 24.70 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.40 | 1.12 | 1.68 | 0.14 | 0.28 | |
| | µmol/l | 124 | 99.1 | 149 | 12.45 | 24.90 | Jaffe rate blanked compensated (-18 µmol/l) |
| | mg/dl | 1.40 | 1.12 | 1.68 | 0.14 | 0.28 | |
| D-3-Hydroxybutyrate | mmol/l | 0.28 | 0.24 | 0.33 | 0.02 | 0.04 | Tris buffer 100mmol pH 8.5 |
| Free T4 | pmol/l | 22.2 | 16.7 | 27.7 | 2.75 | 5.50 | Roche Cobas 6000/8000 |
| | ng/dl | 1.73 | 1.30 | 2.16 | 0.22 | 0.43 | |
| | pg/ml | 17.3 | 13.0 | 21.6 | 2.15 | 4.30 | Roche Cobas 6000/8000 |
| gamma-GT | U/l | 50 | 42 | 58 | 4.00 | 8.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 39 | 33 | 45 | 3.00 | 6.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 31 | 26 | 36 | 2.50 | 5.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| | U/l | 57 | 48 | 66 | 4.50 | 9.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 45 | 38 | 52 | 3.50 | 7.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 35 | 30 | 40 | 2.50 | 5.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| GLDH | U/l | 16 | 13 | 19 | 1.50 | 3.00 | Triethanolamine buffer 50 mmol 37°C |
| | U/l | 12 | 10 | 14 | 1.00 | 2.00 | Triethanolamine buffer 50 mmol 30°C |
| | U/l | 10 | 8 | 12 | 1.00 | 2.00 | Triethanolamine buffer 50 mmol 25°C |



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## Roche Cobas 6000 c501 e601

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Glucose | mmol/l | 6.12 | 5.20 | 7.04 | 0.46 | 0.92 | Hexokinase |
| | mg/dl | 110 | 93.7 | 126 | 8.15 | 16.30 | |
| | mmol/l | 6.15 | 5.23 | 7.07 | 0.46 | 0.92 | Glucose oxidase |
| | mg/dl | 111 | 94.2 | 128 | 8.40 | 16.80 | |
| HDL - Cholesterol | mmol/l | 1.20 | 1.02 | 1.38 | 0.09 | 0.18 | Direct HDL PEGME |
| | mg/dl | 46.3 | 39.4 | 53.2 | 3.45 | 6.90 | |
| | mmol/l | 1.19 | 1.01 | 1.37 | 0.09 | 0.18 | Direct HDL Roche 3rd generation |
| | mg/dl | 45.9 | 39.0 | 52.8 | 3.45 | 6.90 | |
| Iron | µmol/l | 19.8 | 16.2 | 23.4 | 1.80 | 3.60 | Colorimetric with ppt. |
| | µg/dl | 111 | 90.6 | 131 | 10.20 | 20.40 | |
| | µmol/l | 20.2 | 16.5 | 23.9 | 1.85 | 3.70 | Colorimetric without ppt. |
| | µg/dl | 113 | 92.2 | 134 | 10.40 | 20.80 | |
| Lactate | mmol/l | 1.51 | 1.24 | 1.78 | 0.14 | 0.27 | Colorimetric Lactate Oxidase |
| | mg/dl | 13.6 | 11.2 | 16.0 | 1.20 | 2.40 | |
| LD (LDH) | U/l | 428 | 364 | 492 | 32.00 | 64.00 | P->L German methods 37°C |
| | U/l | 309 | 263 | 355 | 23.00 | 46.00 | P->L German methods 30°C |
| | U/l | 217 | 185 | 249 | 16.00 | 32.00 | P->L German methods 25°C |
| | U/l | 432 | 367 | 497 | 32.50 | 65.00 | P->L SFBC 37°C |
| | U/l | 312 | 265 | 359 | 23.50 | 47.00 | P->L SFBC 30°C |
| | U/l | 219 | 186 | 252 | 16.50 | 33.00 | P->L SFBC 25°C |
| | U/l | 215 | 183 | 247 | 16.00 | 32.00 | L->P IFCC 37°C |
| | U/l | 155 | 132 | 178 | 11.50 | 23.00 | L->P IFCC 30°C |
| | U/l | 109 | 93 | 125 | 8.00 | 16.00 | L->P IFCC 25°C |



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## Roche Cobas 6000 c501 e601

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Lipase | U/l | 35 | 28 | 42 | 3.50 | 7.00 | Roche Colorimetric 37°C |
| Lithium | mmol/l | 1.10 | 0.97 | 1.23 | 0.07 | 0.13 | Spectrophotometric |
| | mg/dl | 0.764 | 0.671 | 0.857 | 0.05 | 0.09 | |
| Magnesium | mmol/l | 0.91 | 0.80 | 1.02 | 0.06 | 0.11 | Xylidyl Blue |
| | mg/dl | 2.22 | 1.95 | 2.49 | 0.14 | 0.27 | |
| | mmol/l | 0.92 | 0.81 | 1.02 | 0.05 | 0.11 | Chlorphosphonazo III |
| | mg/dl | 2.22 | 1.96 | 2.48 | 0.13 | 0.26 | |
| Osmolality | mOsm/kg | 284 | 227 | 341 | 28.50 | 57.00 | Calculated |
| Phosphate Inorganic | mmol/l | 1.40 | 1.19 | 1.61 | 0.11 | 0.21 | Phosphomolybdate enzymatic |
| | mg/dl | 4.34 | 3.69 | 4.99 | 0.33 | 0.65 | |
| | mmol/l | 1.40 | 1.19 | 1.61 | 0.11 | 0.21 | Phosphomolybdate UV |
| | mg/dl | 4.34 | 3.69 | 4.99 | 0.33 | 0.65 | |
| Potassium | mmol/l | 3.99 | 3.67 | 4.31 | 0.16 | 0.32 | ISE method - indirect |
| Protein Total | g/l | 57.2 | 45.8 | 68.6 | 5.70 | 11.40 | Biuret reaction end point |
| | g/dl | 5.72 | 4.58 | 6.86 | 0.57 | 1.14 | |
| | g/l | 57.1 | 45.7 | 68.5 | 5.70 | 11.40 | Biuret reaction kinetic |
| | g/dl | 5.71 | 4.57 | 6.85 | 0.57 | 1.14 | |
| PSA Total | ng/ml = | 16.8 | 12.6 | 21.0 | 2.10 | 4.20 | Roche Cobas 6000/8000 |
| Sodium | mmol/l | 139 | 132 | 146 | 3.50 | 7.00 | ISE method - indirect |
| Thyroid Stimulating Hormone | µU/ml = | 1.51 | 1.21 | 1.81 | 0.15 | 0.30 | Roche Cobas 6000/8000 |
| TIBC | µmol/l | 43.0 | 33.9 | 52.1 | 4.55 | 9.10 | FE+UIBC(saturation with iron) |
| | µg/dl | 240 | 190 | 290 | 25.00 | 50.00 | |
| | µmol/l | 43.9 | 34.7 | 53.1 | 4.60 | 9.20 | Direct Colorimetric |
| | µg/dl | 245 | 194 | 296 | 25.50 | 51.00 | |
| Total T3 | nmol/l | 2.61 | 1.96 | 3.26 | 0.33 | 0.65 | Roche Cobas 6000/8000 |
| | ng/ml | 1.70 | 1.28 | 2.12 | 0.21 | 0.42 | |
| | ng/dl | 170 | 128 | 212 | 21.00 | 42.00 | Roche Cobas 6000/8000 |



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## Roche Cobas 6000 c501 e601

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Triglycerides | mmol/l | 1.05 | 0.88 | 1.22 | 0.09 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 92.9 | 77.9 | 108 | 7.50 | 15.00 | |
| | mmol/l | 1.04 | 0.87 | 1.21 | 0.08 | 0.17 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 92.0 | 77.1 | 107 | 7.45 | 14.90 | |
| | mmol/l | 1.03 | 0.87 | 1.19 | 0.08 | 0.16 | L/G Kinase EP. no correction |
| | mg/dl | 91.2 | 76.8 | 106 | 7.20 | 14.40 | |
| | mmol/l | 1.05 | 0.88 | 1.22 | 0.08 | 0.17 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 92.9 | 78.1 | 108 | 7.40 | 14.80 | |
| Uric Acid (Urate) | mmol/l | 0.34 | 0.29 | 0.38 | 0.02 | 0.04 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.66 | 4.94 | 6.38 | 0.36 | 0.72 | |
| | mmol/l | 0.33 | 0.29 | 0.38 | 0.02 | 0.04 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.61 | 4.89 | 6.33 | 0.36 | 0.72 | |
| | mmol/l | 0.34 | 0.30 | 0.38 | 0.02 | 0.04 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.70 | 4.96 | 6.44 | 0.37 | 0.74 | |
| Urea | mmol/l | 6.94 | 5.90 | 7.98 | 0.52 | 1.04 | Urease end point |
| | mg/dl | 41.7 | 35.5 | 47.9 | 3.10 | 6.20 | |
| | mmol/l | 7.16 | 6.09 | 8.23 | 0.54 | 1.07 | Urease kinetic |
| | mg/dl | 43.0 | 36.6 | 49.4 | 3.20 | 6.40 | |
| | mmol/l | 7.16 | 6.09 | 8.23 | 0.54 | 1.07 | BUN |
| | mg/dl | 20.1 | 17.1 | 23.1 | 1.50 | 3.00 | |



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## Roche Cobas C111®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 41.2 | 35.0 | 47.4 | 3.10 | 6.20 | Bromocresol Green |
| | g/dl | 4.12 | 3.50 | 4.74 | 0.31 | 0.62 | |
| Alkaline Phosphatase | U/l | 94 | 80 | 108 | 7.00 | 14.00 | Roche Integra AMP buffer 37°C |
| | U/l | 73 | 62 | 84 | 5.50 | 11.00 | Roche Integra AMP buffer 30°C |
| | U/l | 60 | 51 | 69 | 4.50 | 9.00 | Roche Integra AMP buffer 25°C |
| ALT (GPT) | U/l | 34 | 27 | 41 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 25 | 20 | 30 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 19 | 15 | 23 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| Amylase Total | U/l | 91 | 78 | 104 | 6.50 | 13.00 | Roche liquid stable pNPG7 37°C |
| AST (GOT) | U/l | 34 | 28 | 40 | 3.00 | 6.00 | Tris buffer without P5P 37°C |
| | U/l | 23 | 19 | 27 | 2.00 | 4.00 | Tris buffer without P5P 30°C |
| | U/l | 16 | 13 | 19 | 1.50 | 3.00 | Tris buffer without P5P 25°C |
| Bilirubin Direct | µmol/l | 20.4 | 16.2 | 24.6 | 2.10 | 4.20 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.19 | 0.948 | 1.43 | 0.12 | 0.24 | |
| | µmol/l | 20.0 | 15.8 | 24.2 | 2.10 | 4.20 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.17 | 0.924 | 1.42 | 0.12 | 0.25 | |
| | µmol/l | 20.3 | 16.0 | 24.6 | 2.15 | 4.30 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.19 | 0.936 | 1.44 | 0.13 | 0.25 | |
| Bilirubin Total | µmol/l | 27.2 | 21.5 | 32.9 | 2.85 | 5.70 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.59 | 1.26 | 1.92 | 0.17 | 0.33 | |
| | µmol/l | 27.7 | 21.9 | 33.5 | 2.90 | 5.80 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.62 | 1.28 | 1.96 | 0.17 | 0.34 | |



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## Roche Cobas C111®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Bilirubin Total | µmol/l | 27.9 | 22.1 | 33.7 | 2.90 | 5.80 | Diazonium ion |
| | mg/dl | 1.63 | 1.29 | 1.97 | 0.17 | 0.34 | |
| Calcium | mmol/l | 2.26 | 2.03 | 2.49 | 0.12 | 0.23 | Cresolphthalein complexone |
| | mg/dl | 9.06 | 8.14 | 9.98 | 0.46 | 0.92 | |
| | mmol/l | 2.25 | 2.03 | 2.47 | 0.11 | 0.22 | NM-BAPTA |
| | mg/dl | 9.02 | 8.14 | 9.90 | 0.44 | 0.88 | |
| Cholesterol | mmol/l | 4.16 | 3.62 | 4.70 | 0.27 | 0.54 | Cholesterol Oxidase |
| | mg/dl | 161 | 140 | 182 | 10.50 | 21.00 | |
| Chloride | mmol/l | 96.7 | 89.0 | 104 | 3.85 | 7.70 | ISE indirect |
| CK Total | U/l | 189 | 155 | 223 | 17.00 | 34.00 | CK-NAC (IFCC) 37°C |
| | U/l | 118 | 97 | 139 | 10.50 | 21.00 | CK-NAC (IFCC) 30°C |
| | U/l | 80 | 66 | 94 | 7.00 | 14.00 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 117 | 93.5 | 141 | 11.75 | 23.50 | Alkaline picrate no deproteinization |
| | mg/dl | 1.32 | 1.06 | 1.58 | 0.13 | 0.26 | |
| | µmol/l | 119 | 94.8 | 143 | 12.10 | 24.20 | Roche Creatinine Plus |
| | mg/dl | 1.34 | 1.07 | 1.61 | 0.14 | 0.27 | |
| | µmol/l | 123 | 98.6 | 147 | 12.20 | 24.40 | Jaffe rate blanked |
| | mg/dl | 1.39 | 1.11 | 1.67 | 0.14 | 0.28 | |
| | µmol/l | 116 | 92.6 | 139 | 11.70 | 23.40 | Jaffe rate blanked compensated (-18 µmol/l) |
| | mg/dl | 1.31 | 1.05 | 1.57 | 0.13 | 0.26 | |
| gamma-GT | U/l | 55 | 47 | 63 | 4.00 | 8.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 43 | 37 | 49 | 3.00 | 6.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 34 | 29 | 39 | 2.50 | 5.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.23 | 5.30 | 7.16 | 0.47 | 0.93 | Hexokinase |
| | mg/dl | 112 | 95.5 | 129 | 8.25 | 16.50 | |



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## Roche Cobas C111®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Glucose | mmol/l | 6.29 | 5.35 | 7.23 | 0.47 | 0.94 | Glucose oxidase |
| | mg/dl | 113 | 96.4 | 130 | 8.30 | 16.60 | |
| HDL - Cholesterol | mmol/l | 1.19 | 1.01 | 1.37 | 0.09 | 0.18 | Direct HDL PEGME |
| | mg/dl | 45.9 | 39.0 | 52.8 | 3.45 | 6.90 | |
| | mmol/l | 1.22 | 1.04 | 1.40 | 0.09 | 0.18 | Direct HDL Roche 3rd generation |
| | mg/dl | 47.1 | 40.1 | 54.1 | 3.50 | 7.00 | |
| Iron | µmol/l | 20.5 | 16.8 | 24.2 | 1.85 | 3.70 | Colorimetric without ppt. |
| | µg/dl | 115 | 93.9 | 136 | 10.55 | 21.10 | |
| LD (LDH) | U/l | 226 | 192 | 260 | 17.00 | 34.00 | L->P IFCC 37°C |
| | U/l | 163 | 139 | 187 | 12.00 | 24.00 | L->P IFCC 30°C |
| | U/l | 115 | 97 | 133 | 9.00 | 18.00 | L->P IFCC 25°C |
| Magnesium | mmol/l | 0.92 | 0.81 | 1.03 | 0.06 | 0.11 | Chlorphosphonazo III |
| | mg/dl | 2.24 | 1.97 | 2.51 | 0.14 | 0.27 | |
| Phosphate Inorganic | mmol/l | 1.45 | 1.23 | 1.67 | 0.11 | 0.22 | Phosphomolybdate UV |
| | mg/dl | 4.50 | 3.81 | 5.19 | 0.35 | 0.69 | |
| Potassium | mmol/l | 3.93 | 3.62 | 4.24 | 0.16 | 0.31 | ISE method - indirect |
| Protein Total | g/l | 58.5 | 46.8 | 70.2 | 5.85 | 11.70 | Biuret reaction end point |
| | g/dl | 5.85 | 4.68 | 7.02 | 0.59 | 1.17 | |
| Sodium | mmol/l | 137 | 130 | 144 | 3.50 | 7.00 | ISE method - indirect |
| Triglycerides | mmol/l | 1.06 | 0.89 | 1.23 | 0.09 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 93.8 | 78.6 | 109 | 7.60 | 15.20 | |
| | mmol/l | 1.06 | 0.89 | 1.23 | 0.09 | 0.17 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 93.8 | 78.5 | 109 | 7.65 | 15.30 | |
| Uric Acid (Urate) | mmol/l | 0.34 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.75 | 4.99 | 6.51 | 0.38 | 0.76 | |



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## Roche Cobas C111®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Uric Acid (Urate) | mmol/l | 0.35 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.81 | 5.06 | 6.56 | 0.38 | 0.75 | |
| | mmol/l | 0.36 | 0.31 | 0.40 | 0.02 | 0.05 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.98 | 5.21 | 6.75 | 0.39 | 0.77 | |
| Urea | mmol/l | 6.99 | 5.94 | 8.04 | 0.53 | 1.05 | Urease kinetic |
| | mg/dl | 42.0 | 35.7 | 48.3 | 3.15 | 6.30 | |
| | mmol/l | 7.36 | 6.26 | 8.46 | 0.55 | 1.10 | Urease hypochlorite |
| | mg/dl | 44.2 | 37.6 | 50.8 | 3.30 | 6.60 | |
| | mmol/l | 7.16 | 6.08 | 8.24 | 0.54 | 1.08 | Agappe - Urease GLDH |
| | mg/dl | 43.0 | 36.5 | 49.5 | 3.25 | 6.50 | |
| | mmol/l | 6.99 | 5.94 | 8.04 | 0.53 | 1.05 | BUN |
| | mg/dl | 19.6 | 16.7 | 22.5 | 1.45 | 2.90 | |



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## Roche Cobas C311®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 41.0 | 34.8 | 47.2 | 3.10 | 6.20 | Bromocresol Green |
| | g/dl | 4.10 | 3.48 | 4.72 | 0.31 | 0.62 | |
| | g/l | 41.1 | 35.0 | 47.2 | 3.05 | 6.10 | Bromocresol Purple |
| | g/dl | 4.11 | 3.50 | 4.72 | 0.31 | 0.61 | |
| Alkaline Phosphatase | U/l | 96 | 82 | 110 | 7.00 | 14.00 | Roche Integra AMP buffer 37°C |
| | U/l | 75 | 64 | 86 | 5.50 | 11.00 | Roche Integra AMP buffer 30°C |
| | U/l | 61 | 52 | 70 | 4.50 | 9.00 | Roche Integra AMP buffer 25°C |
| ALT (GPT) | U/l | 34 | 27 | 41 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 25 | 20 | 30 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 19 | 15 | 23 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| Amylase Total | U/l | 91 | 78 | 104 | 6.50 | 13.00 | Roche liquid stable pNPG7 37°C |
| AST (GOT) | U/l | 34 | 27 | 41 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 23 | 18 | 28 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 16 | 13 | 19 | 1.50 | 3.00 | Tris buffer without P5P 25°C |
| Bicarbonate | mmol/l | 14.0 | 11.1 | 16.9 | 1.45 | 2.90 | Enzymatic |
| Bilirubin Direct | µmol/l | 21.7 | 17.2 | 26.2 | 2.25 | 4.50 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.27 | 1.01 | 1.53 | 0.13 | 0.26 | |
| | µmol/l | 21.8 | 17.2 | 26.4 | 2.30 | 4.60 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.28 | 1.01 | 1.55 | 0.14 | 0.27 | |
| | µmol/l | 21.4 | 16.9 | 25.9 | 2.25 | 4.50 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.25 | 0.989 | 1.51 | 0.13 | 0.26 | |



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## Roche Cobas C311®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Bilirubin Total | µmol/l | 26.6 | 21.0 | 32.2 | 2.80 | 5.60 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.56 | 1.23 | 1.89 | 0.17 | 0.33 | |
| | µmol/l | 27.0 | 21.3 | 32.7 | 2.85 | 5.70 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.58 | 1.25 | 1.91 | 0.17 | 0.33 | |
| | µmol/l | 27.2 | 21.5 | 32.9 | 2.85 | 5.70 | Diazonium ion |
| | mg/dl | 1.59 | 1.26 | 1.92 | 0.17 | 0.33 | |
| Calcium | mmol/l | 2.28 | 2.05 | 2.51 | 0.12 | 0.23 | Cresolphthalein complexone |
| | mg/dl | 9.14 | 8.22 | 10.1 | 0.46 | 0.92 | |
| | mmol/l | 2.20 | 1.98 | 2.42 | 0.11 | 0.22 | Arsenazo III |
| | mg/dl | 8.82 | 7.94 | 9.70 | 0.44 | 0.88 | |
| | mmol/l | 2.28 | 2.05 | 2.51 | 0.12 | 0.23 | NM-BAPTA |
| | mg/dl | 9.14 | 8.22 | 10.1 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 4.07 | 3.55 | 4.59 | 0.26 | 0.52 | Cholesterol Oxidase |
| | mg/dl | 157 | 137 | 177 | 10.00 | 20.00 | |
| Chloride | mmol/l | 90.4 | 83.1 | 97.7 | 3.65 | 7.30 | ISE indirect |
| CK Total | U/l | 197 | 162 | 232 | 17.50 | 35.00 | CK-NAC (IFCC) 37°C |
| | U/l | 123 | 101 | 145 | 11.00 | 22.00 | CK-NAC (IFCC) 30°C |
| | U/l | 84 | 69 | 99 | 7.50 | 15.00 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 122 | 97.6 | 146 | 12.20 | 24.40 | Alkaline picrate no deproteinization |
| | mg/dl | 1.38 | 1.10 | 1.66 | 0.14 | 0.28 | |
| | µmol/l | 128 | 102 | 154 | 13.00 | 26.00 | Randox Enzymatic UV method |
| | mg/dl | 1.45 | 1.15 | 1.75 | 0.15 | 0.30 | |
| | µmol/l | 129 | 104 | 154 | 12.50 | 25.00 | Roche Creatinine Plus |
| | mg/dl | 1.46 | 1.18 | 1.74 | 0.14 | 0.28 | |
| | µmol/l | 129 | 103 | 155 | 13.00 | 26.00 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.46 | 1.16 | 1.76 | 0.15 | 0.30 | |



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## Roche Cobas C311®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| gamma-GT | U/l | 52 | 44 | 60 | 4.00 | 8.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 41 | 35 | 47 | 3.00 | 6.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 32 | 27 | 37 | 2.50 | 5.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| | U/l | 57 | 49 | 65 | 4.00 | 8.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 45 | 39 | 51 | 3.00 | 6.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 35 | 30 | 40 | 2.50 | 5.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.16 | 5.24 | 7.08 | 0.46 | 0.92 | Hexokinase |
| | mg/dl | 111 | 94.4 | 128 | 8.30 | 16.60 | |
| | mmol/l | 6.14 | 5.22 | 7.06 | 0.46 | 0.92 | Glucose oxidase |
| | mg/dl | 111 | 94.1 | 128 | 8.45 | 16.90 | |
| HDL - Cholesterol | mmol/l | 1.18 | 1.01 | 1.35 | 0.09 | 0.17 | Direct HDL Roche 3rd generation |
| | mg/dl | 45.5 | 39.0 | 52.0 | 3.25 | 6.50 | |
| Iron | µmol/l | 20.2 | 16.6 | 23.8 | 1.80 | 3.60 | Colorimetric without ppt. |
| | µg/dl | 113 | 92.8 | 133 | 10.10 | 20.20 | |
| LD (LDH) | U/l | 215 | 183 | 247 | 16.00 | 32.00 | L->P IFCC 37°C |
| | U/l | 155 | 132 | 178 | 11.50 | 23.00 | L->P IFCC 30°C |
| | U/l | 109 | 93 | 125 | 8.00 | 16.00 | L->P IFCC 25°C |
| Lipase | U/l | 35 | 28 | 42 | 3.50 | 7.00 | Roche Colorimetric 37°C |
| Magnesium | mmol/l | 0.91 | 0.80 | 1.02 | 0.06 | 0.11 | Xylidyl Blue |
| | mg/dl | 2.22 | 1.95 | 2.49 | 0.14 | 0.27 | |
| | mmol/l | 0.94 | 0.82 | 1.05 | 0.06 | 0.11 | Chlorphosphonazo III |
| | mg/dl | 2.27 | 2.00 | 2.54 | 0.14 | 0.27 | |
| Phosphate Inorganic | mmol/l | 1.45 | 1.23 | 1.67 | 0.11 | 0.22 | Phosphomolybdate enzymatic |
| | mg/dl | 4.50 | 3.81 | 5.19 | 0.35 | 0.69 | |



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## Roche Cobas C311®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Phosphate Inorganic | mmol/l | 1.41 | 1.20 | 1.62 | 0.11 | 0.21 | Phosphomolybdate UV |
| | mg/dl | 4.37 | 3.72 | 5.02 | 0.33 | 0.65 | |
| Potassium | mmol/l | 4.01 | 3.69 | 4.33 | 0.16 | 0.32 | ISE method - indirect |
| Protein Total | g/l | 57.8 | 46.2 | 69.4 | 5.80 | 11.60 | Biuret reaction end point |
| | g/dl | 5.78 | 4.62 | 6.94 | 0.58 | 1.16 | |
| | g/l | 57.2 | 45.7 | 68.7 | 5.75 | 11.50 | Biuret reaction kinetic |
| | g/dl | 5.72 | 4.57 | 6.87 | 0.58 | 1.15 | |
| Sodium | mmol/l | 140 | 133 | 147 | 3.50 | 7.00 | ISE method - indirect |
| TIBC | µmol/l | 44.8 | 35.4 | 54.2 | 4.70 | 9.40 | FE+UIBC(saturation with iron) |
| | µg/dl | 250 | 198 | 302 | 26.00 | 52.00 | |
| Triglycerides | mmol/l | 1.05 | 0.88 | 1.22 | 0.08 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 92.9 | 78.2 | 108 | 7.35 | 14.70 | |
| | mmol/l | 1.07 | 0.90 | 1.24 | 0.09 | 0.17 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 94.7 | 79.6 | 110 | 7.55 | 15.10 | |
| | mmol/l | 1.03 | 0.87 | 1.19 | 0.08 | 0.16 | L/G Kinase EP. no correction |
| | mg/dl | 91.2 | 76.7 | 106 | 7.25 | 14.50 | |
| Uric Acid (Urate) | mmol/l | 0.34 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.78 | 5.02 | 6.54 | 0.38 | 0.76 | |
| | mmol/l | 0.35 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.81 | 5.06 | 6.56 | 0.38 | 0.75 | |
| | mmol/l | 0.35 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.80 | 5.04 | 6.56 | 0.38 | 0.76 | |
| Urea | mmol/l | 7.29 | 6.20 | 8.38 | 0.55 | 1.09 | Urease kinetic |
| | mg/dl | 43.8 | 37.3 | 50.3 | 3.25 | 6.50 | |
| | mmol/l | 7.29 | 6.20 | 8.38 | 0.55 | 1.09 | BUN |
| | mg/dl | 20.5 | 17.4 | 23.6 | 1.55 | 3.10 | |



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# Roche Cobas c701 / c702 / c711

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 40.8 | 34.7 | 46.9 | 3.05 | 6.10 | Bromocresol Green |
| | g/dl | 4.08 | 3.47 | 4.69 | 0.31 | 0.61 | |
| Alkaline Phosphatase | U/l | 88 | 74 | 102 | 7.00 | 14.00 | Roche Integra AMP buffer 37°C |
| | U/l | 69 | 58 | 80 | 5.50 | 11.00 | Roche Integra AMP buffer 30°C |
| | U/l | 56 | 47 | 65 | 4.50 | 9.00 | Roche Integra AMP buffer 25°C |
| ALT (GPT) | U/l | 35 | 28 | 42 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 26 | 21 | 31 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 20 | 16 | 24 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| Amylase Pancreatic | U/l | 68 | 58 | 78 | 5.00 | 10.00 | Randox EPS Liquid and BM/Roche EPS Liquid 37°C |
| Amylase Total | U/l | 90 | 77 | 103 | 6.50 | 13.00 | Roche liquid stable pNPG7 37°C |
| AST (GOT) | U/l | 34 | 28 | 40 | 3.00 | 6.00 | Tris buffer without P5P 37°C |
| | U/l | 23 | 19 | 27 | 2.00 | 4.00 | Tris buffer without P5P 30°C |
| | U/l | 16 | 13 | 19 | 1.50 | 3.00 | Tris buffer without P5P 25°C |
| Bile Acids | µmol/l | 25.6 | 20.4 | 30.8 | 2.60 | 5.20 | Enzymatic Colorimetric |
| Bicarbonate | mmol/l | 14.2 | 11.2 | 17.2 | 1.50 | 3.00 | Enzymatic |
| Bilirubin Direct | µmol/l | 21.3 | 16.8 | 25.8 | 2.25 | 4.50 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.25 | 0.983 | 1.52 | 0.13 | 0.27 | |
| Bilirubin Total | µmol/l | 26.2 | 20.7 | 31.7 | 2.75 | 5.50 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.53 | 1.21 | 1.85 | 0.16 | 0.32 | |
| | µmol/l | 26.3 | 20.8 | 31.8 | 2.75 | 5.50 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.54 | 1.22 | 1.86 | 0.16 | 0.32 | |



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## Roche Cobas c701 / c702 / c711

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Bilirubin Total | µmol/l | 26.0 | 20.6 | 31.4 | 2.70 | 5.40 | Diazonium ion |
| | mg/dl | 1.52 | 1.21 | 1.83 | 0.16 | 0.31 | |
| Calcium | mmol/l | 2.27 | 2.04 | 2.50 | 0.12 | 0.23 | Cresolphthalein complexone |
| | mg/dl | 9.10 | 8.18 | 10.0 | 0.46 | 0.92 | |
| | mmol/l | 2.26 | 2.03 | 2.49 | 0.12 | 0.23 | NM-BAPTA |
| | mg/dl | 9.06 | 8.14 | 9.98 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 3.95 | 3.44 | 4.46 | 0.26 | 0.51 | Cholesterol Oxidase |
| | mg/dl | 152 | 133 | 171 | 9.50 | 19.00 | |
| Chloride | mmol/l | 90.4 | 83.2 | 97.6 | 3.60 | 7.20 | ISE indirect |
| CK Total | U/l | 179 | 147 | 211 | 16.00 | 32.00 | CK-NAC (IFCC) 37°C |
| | U/l | 112 | 92 | 132 | 10.00 | 20.00 | CK-NAC (IFCC) 30°C |
| | U/l | 76 | 62 | 90 | 7.00 | 14.00 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 133 | 106 | 160 | 13.50 | 27.00 | Roche Creatinine Plus |
| | mg/dl | 1.50 | 1.20 | 1.80 | 0.15 | 0.30 | |
| | µmol/l | 129 | 103 | 155 | 13.00 | 26.00 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.46 | 1.16 | 1.76 | 0.15 | 0.30 | |
| gamma-GT | U/l | 49 | 41 | 57 | 4.00 | 8.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 39 | 32 | 46 | 3.50 | 7.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 30 | 25 | 35 | 2.50 | 5.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| | U/l | 57 | 49 | 65 | 4.00 | 8.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 45 | 39 | 51 | 3.00 | 6.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 35 | 30 | 40 | 2.50 | 5.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.09 | 5.17 | 7.01 | 0.46 | 0.92 | Hexokinase |
| | mg/dl | 110 | 93.2 | 127 | 8.40 | 16.80 | |
| HDL - Cholesterol | mmol/l | 1.18 | 1.01 | 1.35 | 0.09 | 0.17 | Direct HDL Roche 3rd generation |
| | mg/dl | 45.5 | 39.0 | 52.0 | 3.25 | 6.50 | |



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## Roche Cobas c701 / c702 / c711

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Iron | µmol/l | 19.4 | 15.9 | 22.9 | 1.75 | 3.50 | Colorimetric without ppt. |
| | µg/dl | 108 | 88.9 | 127 | 9.55 | 19.10 | |
| Lactate | mmol/l | 1.50 | 1.23 | 1.77 | 0.14 | 0.27 | Colorimetric Lactate Oxidase |
| | mg/dl | 13.5 | 11.1 | 15.9 | 1.20 | 2.40 | |
| LD (LDH) | U/l | 216 | 183 | 249 | 16.50 | 33.00 | L->P IFCC 37°C |
| | U/l | 156 | 132 | 180 | 12.00 | 24.00 | L->P IFCC 30°C |
| | U/l | 110 | 93 | 127 | 8.50 | 17.00 | L->P IFCC 25°C |
| Lipase | U/l | 36 | 29 | 43 | 3.50 | 7.00 | Roche Colorimetric 37°C |
| Lithium | mmol/l | 1.10 | 0.97 | 1.23 | 0.07 | 0.13 | Spectrophotometric |
| | mg/dl | 0.764 | 0.674 | 0.854 | 0.05 | 0.09 | |
| Magnesium | mmol/l | 0.90 | 0.80 | 1.01 | 0.05 | 0.11 | Xylidyl Blue |
| | mg/dl | 2.20 | 1.93 | 2.47 | 0.14 | 0.27 | |
| Phosphate Inorganic | mmol/l | 1.37 | 1.16 | 1.58 | 0.11 | 0.21 | Phosphomolybdate UV |
| | mg/dl | 4.25 | 3.60 | 4.90 | 0.33 | 0.65 | |
| Potassium | mmol/l | 4.02 | 3.70 | 4.34 | 0.16 | 0.32 | ISE method - indirect |
| Protein Total | g/l | 56.8 | 45.4 | 68.2 | 5.70 | 11.40 | Biuret reaction end point |
| | g/dl | 5.68 | 4.54 | 6.82 | 0.57 | 1.14 | |
| Sodium | mmol/l | 140 | 133 | 147 | 3.50 | 7.00 | ISE method - indirect |
| TIBC | µmol/l | 44.4 | 35.0 | 53.8 | 4.70 | 9.40 | FE+UIBC(saturation with iron) |
| | µg/dl | 248 | 196 | 300 | 26.00 | 52.00 | |
| Triglycerides | mmol/l | 1.02 | 0.86 | 1.19 | 0.08 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 90.3 | 75.7 | 105 | 7.30 | 14.60 | |
| | mmol/l | 1.03 | 0.87 | 1.19 | 0.08 | 0.16 | L/G Kinase EP. no correction |
| | mg/dl | 91.2 | 76.6 | 106 | 7.30 | 14.60 | |



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## Roche Cobas c701 / c702 / c711

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Uric Acid (Urate) | mmol/l | 0.34 | 0.29 | 0.38 | 0.02 | 0.04 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.63 | 4.91 | 6.35 | 0.36 | 0.72 | |
| | mmol/l | 0.34 | 0.29 | 0.38 | 0.02 | 0.04 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.64 | 4.91 | 6.37 | 0.37 | 0.73 | |
| | mmol/l | 0.33 | 0.29 | 0.38 | 0.02 | 0.04 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.58 | 4.86 | 6.30 | 0.36 | 0.72 | |
| Urea | mmol/l | 7.07 | 6.01 | 8.13 | 0.53 | 1.06 | Urease kinetic |
| | mg/dl | 42.5 | 36.1 | 48.9 | 3.20 | 6.40 | |
| | mmol/l | 7.07 | 6.01 | 8.13 | 0.53 | 1.06 | BUN |
| | mg/dl | 19.8 | 16.8 | 22.8 | 1.50 | 3.00 | |



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## RX DAYTONA®/IMOLA®/SUZUKA®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 39.5 | 33.6 | 45.4 | 2.95 | 5.90 | Bromocresol Green |
| | g/dl | 3.95 | 3.36 | 4.54 | 0.30 | 0.59 | |
| Alkaline Phosphatase | U/l | 226 | 192 | 260 | 17.00 | 34.00 | Diethanolamine buffer DEA 37°C |
| | U/l | 126 | 107 | 145 | 9.50 | 19.00 | AMP optimised to IFCC 37°C |
| ALT (GPT) | U/l | 38 | 30 | 46 | 4.00 | 8.00 | Tris buffer without P5P 37°C |
| Amylase Pancreatic | U/l | 78 | 66 | 90 | 6.00 | 12.00 | Randox liquid stable pNPG7 37°C |
| Amylase Total | U/l | 102 | 87 | 117 | 7.50 | 15.00 | Randox liquid stable pNPG7 37°C |
| AST (GOT) | U/l | 39 | 31 | 47 | 4.00 | 8.00 | Tris buffer without P5P 37°C |
| Bile Acids | µmol/l | 24.1 | 19.3 | 28.9 | 2.40 | 4.80 | 5th Generation Colorimetric |
| Bicarbonate | mmol/l | 15.1 | 12.0 | 18.2 | 1.55 | 3.10 | Enzymatic |
| Bilirubin Direct | µmol/l | 21.6 | 17.1 | 26.1 | 2.25 | 4.50 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.26 | 1.00 | 1.52 | 0.13 | 0.26 | |
| | µmol/l | 20.9 | 16.5 | 25.3 | 2.20 | 4.40 | Vanadate Oxidation |
| | mg/dl | 1.22 | 0.965 | 1.48 | 0.13 | 0.26 | |
| Bilirubin Total | µmol/l | 33.3 | 26.3 | 40.3 | 3.50 | 7.00 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.95 | 1.54 | 2.36 | 0.21 | 0.41 | |
| | µmol/l | 30.0 | 23.7 | 36.3 | 3.15 | 6.30 | Vanadate Oxidation |
| | mg/dl | 1.76 | 1.39 | 2.13 | 0.19 | 0.37 | |
| Calcium | mmol/l | 2.33 | 2.10 | 2.56 | 0.12 | 0.23 | Arsenazo III |
| | mg/dl | 9.34 | 8.42 | 10.3 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 4.01 | 3.49 | 4.53 | 0.26 | 0.52 | Cholesterol Oxidase |
| | mg/dl | 155 | 135 | 175 | 10.00 | 20.00 | |



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## RX DAYTONA®/IMOLA®/SUZUKA®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Chloride | mmol/l | 93.2 | 85.7 | 101 | 3.75 | 7.50 | ISE direct |
| CK Total | U/l | 188 | 154 | 222 | 17.00 | 34.00 | CK-NAC substrate start (DGKC) 37°C |
| | U/l | 204 | 167 | 241 | 18.50 | 37.00 | CK-NAC (IFCC) 37°C |
| Creatinine | µmol/l | 121 | 96.8 | 145 | 12.10 | 24.20 | Alkaline picrate no deproteinization |
| | mg/dl | 1.37 | 1.09 | 1.65 | 0.14 | 0.28 | |
| | µmol/l | 130 | 104 | 156 | 13.00 | 26.00 | Randox Enzymatic UV method |
| | mg/dl | 1.47 | 1.18 | 1.76 | 0.15 | 0.29 | |
| gamma-GT | U/l | 60 | 51 | 69 | 4.50 | 9.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| Glucose | mmol/l | 6.33 | 5.38 | 7.28 | 0.48 | 0.95 | Hexokinase |
| | mg/dl | 114 | 96.9 | 131 | 8.55 | 17.10 | |
| | mmol/l | 6.44 | 5.48 | 7.40 | 0.48 | 0.96 | Glucose oxidase |
| | mg/dl | 116 | 98.7 | 133 | 8.65 | 17.30 | |
| Iron | µmol/l | 20.5 | 16.8 | 24.2 | 1.85 | 3.70 | Colorimetric without ppt. |
| | µg/dl | 115 | 93.9 | 136 | 10.55 | 21.10 | |
| Lactate | mmol/l | 1.49 | 1.22 | 1.76 | 0.14 | 0.27 | Colorimetric Lactate Oxidase |
| | mg/dl | 13.4 | 11.0 | 15.8 | 1.20 | 2.40 | |
| LD (LDH) | U/l | 422 | 359 | 485 | 31.50 | 63.00 | P->L German methods 37°C |
| | U/l | 223 | 190 | 256 | 16.50 | 33.00 | L->P IFCC 37°C |
| Lipase | U/l | 39 | 31 | 47 | 4.00 | 8.00 | Randox Colorimetric 37°C |
| Lithium | mmol/l | 1.09 | 0.96 | 1.22 | 0.07 | 0.13 | Colorimetric |
| | mg/dl | 0.757 | 0.666 | 0.848 | 0.05 | 0.09 | |
| Magnesium | mmol/l | 0.94 | 0.83 | 1.05 | 0.06 | 0.11 | Xylidyl Blue |
| | mg/dl | 2.28 | 2.01 | 2.55 | 0.14 | 0.27 | |
| Phosphate Inorganic | mmol/l | 1.44 | 1.22 | 1.66 | 0.11 | 0.22 | Phosphomolybdate UV |
| | mg/dl | 4.46 | 3.78 | 5.14 | 0.34 | 0.68 | |



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## RX DAYTONA®/IMOLA®/SUZUKA®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Potassium | mmol/l | 4.02 | 3.70 | 4.34 | 0.16 | 0.32 | Enzymatic |
| | mmol/l | 3.96 | 3.64 | 4.28 | 0.16 | 0.32 | ISE method - direct |
| Protein Total | g/l | 59.5 | 47.6 | 71.4 | 5.95 | 11.90 | Biuret reaction end point |
| | g/dl | 5.95 | 4.76 | 7.14 | 0.60 | 1.19 | |
| Sodium | mmol/l | 145 | 138 | 152 | 3.50 | 7.00 | Enzymatic |
| | mmol/l | 139 | 132 | 146 | 3.50 | 7.00 | ISE method - direct |
| TIBC | µmol/l | 49.3 | 38.9 | 59.7 | 5.20 | 10.40 | Direct Colorimetric |
| | µg/dl | 276 | 217 | 335 | 29.50 | 59.00 | |
| Triglycerides | mmol/l | 1.08 | 0.91 | 1.25 | 0.09 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 95.6 | 80.4 | 111 | 7.60 | 15.20 | |
| Uric Acid (Urate) | mmol/l | 0.34 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.76 | 5.01 | 6.51 | 0.38 | 0.75 | |
| | mmol/l | 0.35 | 0.31 | 0.40 | 0.02 | 0.05 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.91 | 5.14 | 6.68 | 0.39 | 0.77 | |
| Urea | mmol/l | 7.34 | 6.24 | 8.44 | 0.55 | 1.10 | Urease kinetic |
| | mg/dl | 44.1 | 37.5 | 50.7 | 3.30 | 6.60 | |
| | mmol/l | 7.34 | 6.24 | 8.44 | 0.55 | 1.10 | BUN |
| | mg/dl | 20.6 | 17.5 | 23.7 | 1.55 | 3.10 | |



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## SIEMENS ADVIA 1200/1650/2400®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 39.0 | 33.2 | 44.8 | 2.90 | 5.80 | Bromocresol Green |
| | g/dl | 3.90 | 3.32 | 4.48 | 0.29 | 0.58 | |
| | g/l | 43.5 | 37.0 | 50.0 | 3.25 | 6.50 | Bromocresol Purple |
| | g/dl | 4.35 | 3.70 | 5.00 | 0.33 | 0.65 | |
| Alkaline Phosphatase | U/l | 125 | 106 | 144 | 9.50 | 19.00 | AMP optimised to IFCC 37°C |
| | U/l | 126 | 107 | 145 | 9.50 | 19.00 | AMP non-optimised 37°C |
| ALT (GPT) | U/l | 37 | 30 | 44 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| Amylase Pancreatic | U/l | 70 | 59 | 81 | 5.50 | 11.00 | Immunoinhibition EPS substrate 37°C |
| Amylase Total | U/l | 92 | 78 | 106 | 7.00 | 14.00 | Siemens - blocked pNPG7 37°C |
| AST (GOT) | U/l | 36 | 29 | 43 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| Bile Acids | µmol/l | 25.2 | 20.2 | 30.2 | 2.50 | 5.00 | Enzymatic Colorimetric |
| Bicarbonate | mmol/l | 15.4 | 12.2 | 18.6 | 1.60 | 3.20 | Enzymatic |
| Bilirubin Direct | µmol/l | 19.2 | 15.2 | 23.2 | 2.00 | 4.00 | Oxidation to Biliverdin |
| | mg/dl | 1.12 | 0.889 | 1.35 | 0.12 | 0.23 | |
| Bilirubin Total | µmol/l | 30.5 | 24.1 | 36.9 | 3.20 | 6.40 | Oxidation to Biliverdin |
| | mg/dl | 1.78 | 1.41 | 2.15 | 0.19 | 0.37 | |
| Calcium | mmol/l | 2.23 | 2.01 | 2.45 | 0.11 | 0.22 | Cresolphthalein complexone |
| | mg/dl | 8.94 | 8.06 | 9.82 | 0.44 | 0.88 | |
| | mmol/l | 2.27 | 2.04 | 2.50 | 0.12 | 0.23 | Arsenazo III |
| | mg/dl | 9.10 | 8.18 | 10.0 | 0.46 | 0.92 | |
| Cholesterol | mmol/l | 3.94 | 3.42 | 4.46 | 0.26 | 0.52 | Cholesterol Oxidase |
| | mg/dl | 152 | 132 | 172 | 10.00 | 20.00 | |



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## SIEMENS ADVIA 1200/1650/2400®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Chloride | mmol/l | 96.7 | 88.9 | 105 | 3.90 | 7.80 | ISE indirect |
| CK Total | U/l | 184 | 151 | 217 | 16.50 | 33.00 | CK-NAC substrate start (DGKC) 37°C |
| | U/l | 185 | 151 | 219 | 17.00 | 34.00 | CK-NAC (IFCC) 37°C |
| Creatinine | µmol/l | 129 | 103 | 155 | 13.00 | 26.00 | Alkaline picrate no deproteinization |
| | mg/dl | 1.46 | 1.16 | 1.76 | 0.15 | 0.30 | |
| | µmol/l | 120 | 95.8 | 144 | 12.10 | 24.20 | Randox Enzymatic UV method |
| | mg/dl | 1.36 | 1.08 | 1.64 | 0.14 | 0.28 | |
| | µmol/l | 120 | 96.2 | 144 | 11.90 | 23.80 | Jaffe rate blanked |
| | mg/dl | 1.36 | 1.09 | 1.63 | 0.14 | 0.27 | |
| | µmol/l | 119 | 95.0 | 143 | 12.00 | 24.00 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.34 | 1.07 | 1.61 | 0.14 | 0.27 | |
| gamma-GT | U/l | 57 | 49 | 65 | 4.00 | 8.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| Glucose | mmol/l | 6.08 | 5.17 | 6.99 | 0.46 | 0.91 | Hexokinase |
| | mg/dl | 110 | 93.2 | 127 | 8.40 | 16.80 | |
| | mmol/l | 6.19 | 5.26 | 7.12 | 0.47 | 0.93 | Glucose oxidase |
| | mg/dl | 112 | 94.8 | 129 | 8.60 | 17.20 | |
| HDL - Cholesterol | mmol/l | 1.11 | 0.95 | 1.28 | 0.08 | 0.17 | Direct HDL Immunoseparation |
| | mg/dl | 42.8 | 36.5 | 49.1 | 3.15 | 6.30 | |
| | mmol/l | 1.07 | 0.91 | 1.23 | 0.08 | 0.16 | Direct Clearance Method |
| | mg/dl | 41.3 | 35.0 | 47.6 | 3.15 | 6.30 | |
| Iron | µmol/l | 20.1 | 16.5 | 23.7 | 1.80 | 3.60 | Colorimetric without ppt. |
| | µg/dl | 112 | 92.2 | 132 | 9.90 | 19.80 | |
| Lactate | mmol/l | 1.36 | 1.11 | 1.61 | 0.13 | 0.25 | Colorimetric Lactate Oxidase |
| | mg/dl | 12.3 | 10.0 | 14.6 | 1.15 | 2.30 | |



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## SIEMENS ADVIA 1200/1650/2400®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| LD (LDH) | U/l | 216 | 184 | 248 | 16.00 | 32.00 | L->P 37°C |
| | U/l | 434 | 369 | 499 | 32.50 | 65.00 | P->L German methods 37°C |
| | U/l | 222 | 189 | 255 | 16.50 | 33.00 | L->P IFCC 37°C |
| Lipase | U/l | 41 | 33 | 49 | 4.00 | 8.00 | Other Colorimetric 37°C |
| Lithium | mmol/l | 1.13 | 0.99 | 1.27 | 0.07 | 0.14 | Spectrophotometric |
| | mg/dl | 0.785 | 0.690 | 0.880 | 0.05 | 0.10 | |
| Magnesium | mmol/l | 0.93 | 0.82 | 1.04 | 0.06 | 0.11 | Xylidyl Blue |
| | mg/dl | 2.26 | 1.99 | 2.53 | 0.14 | 0.27 | |
| Phosphate Inorganic | mmol/l | 1.41 | 1.20 | 1.62 | 0.11 | 0.21 | Phosphomolybdate UV |
| | mg/dl | 4.37 | 3.72 | 5.02 | 0.33 | 0.65 | |
| Potassium | mmol/l | 3.98 | 3.66 | 4.30 | 0.16 | 0.32 | ISE method - indirect |
| Protein Total | g/l | 58.0 | 46.4 | 69.6 | 5.80 | 11.60 | Biuret reaction end point |
| | g/dl | 5.80 | 4.64 | 6.96 | 0.58 | 1.16 | |
| Sodium | mmol/l | 140 | 133 | 147 | 3.50 | 7.00 | ISE method - indirect |
| TIBC | µmol/l | 46.5 | 36.8 | 56.2 | 4.85 | 9.70 | FE+UIBC(saturation with iron) |
| | µg/dl | 260 | 206 | 314 | 27.00 | 54.00 | |
| Triglycerides | mmol/l | 1.08 | 0.90 | 1.26 | 0.09 | 0.18 | Lipase/GPO-PAP no correction |
| | mg/dl | 95.6 | 80.0 | 111 | 7.80 | 15.60 | |
| | mmol/l | 1.08 | 0.91 | 1.25 | 0.09 | 0.17 | L/G Kinase EP. no correction |
| | mg/dl | 95.6 | 80.2 | 111 | 7.70 | 15.40 | |
| Uric Acid (Urate) | mmol/l | 0.35 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.80 | 5.04 | 6.56 | 0.38 | 0.76 | |
| | mmol/l | 0.35 | 0.31 | 0.40 | 0.02 | 0.05 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.95 | 5.17 | 6.73 | 0.39 | 0.78 | |
| Urea | mmol/l | 7.56 | 6.43 | 8.69 | 0.57 | 1.13 | Urease kinetic |
| | mg/dl | 45.4 | 38.6 | 52.2 | 3.40 | 6.80 | |



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## SIEMENS ADVIA 1200/1650/2400®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Urea | mmol/l | 7.56 | 6.43 | 8.69 | 0.57 | 1.13 | BUN |
| | mg/dl | 21.2 | 18.0 | 24.4 | 1.60 | 3.20 | |



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## Siemens Dimension EXL

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 41.6 | 35.3 | 47.9 | 3.15 | 6.30 | Bromocresol Purple |
| | g/dl | 4.16 | 3.53 | 4.79 | 0.32 | 0.63 | |
| Alkaline Phosphatase | U/l | 116 | 99 | 133 | 8.50 | 17.00 | Siemens Dimension AMP buffer 37°C |
| ALT (GPT) | U/l | 40 | 32 | 48 | 4.00 | 8.00 | Tris buffer with P5P 37°C |
| | U/l | 46 | 37 | 55 | 4.50 | 9.00 | Siemens Dade Standard Non IFCC Correlated 37°C |
| Amylase Total | U/l | 101 | 86 | 116 | 7.50 | 15.00 | Siemens 2-chloro-pNP linked substrate 37°C |
| | U/l | 101 | 86 | 116 | 7.50 | 15.00 | Siemens 2-chloro-pNPG3 37°C |
| AST (GOT) | U/l | 46 | 36 | 56 | 5.00 | 10.00 | Tris buffer with P5P 37°C |
| | U/l | 48 | 38 | 58 | 5.00 | 10.00 | Siemens Dade Standard Non IFCC Correlated 37°C |
| Bicarbonate | mmol/l | 15.3 | 12.1 | 18.5 | 1.60 | 3.20 | Enzymatic |
| Bilirubin Direct | µmol/l | 14.2 | 11.2 | 17.2 | 1.50 | 3.00 | Diazo with Sulphanilic Acid |
| | mg/dl | 0.831 | 0.655 | 1.01 | 0.09 | 0.18 | |
| Bilirubin Total | µmol/l | 29.7 | 23.4 | 36.0 | 3.15 | 6.30 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.74 | 1.37 | 2.11 | 0.19 | 0.37 | |
| Calcium | mmol/l | 2.20 | 1.98 | 2.42 | 0.11 | 0.22 | Cresolphthalein complexone |
| | mg/dl | 8.82 | 7.94 | 9.70 | 0.44 | 0.88 | |
| Cholesterol | mmol/l | 3.33 | 2.90 | 3.76 | 0.22 | 0.43 | Cholesterol Oxidase |
| | mg/dl | 129 | 112 | 146 | 8.50 | 17.00 | |
| | mmol/l | 3.46 | 3.01 | 3.91 | 0.23 | 0.45 | Dimension-Siemens reagents |
| | mg/dl | 134 | 116 | 152 | 9.00 | 18.00 | |
| Chloride | mmol/l | 94.6 | 87.1 | 102 | 3.75 | 7.50 | ISE indirect |



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## Siemens Dimension EXL

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| CK Total | U/l | 177 | 145 | 209 | 16.00 | 32.00 | CK-NAC (IFCC) 37°C |
| Creatinine | µmol/l | 131 | 105 | 157 | 13.00 | 26.00 | Alkaline picrate no deproteinization |
| | mg/dl | 1.48 | 1.19 | 1.77 | 0.15 | 0.29 | |
| | µmol/l | 134 | 107 | 161 | 13.50 | 27.00 | IDMS traceable |
| | mg/dl | 1.51 | 1.21 | 1.81 | 0.15 | 0.30 | |
| gamma-GT | U/l | 61 | 52 | 70 | 4.50 | 9.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 73 | 62 | 84 | 5.50 | 11.00 | Siemens Dimension (non IFCC) 37°C |
| Glucose | mmol/l | 6.26 | 5.32 | 7.20 | 0.47 | 0.94 | Hexokinase |
| | mg/dl | 113 | 95.9 | 130 | 8.55 | 17.10 | |
| Iron | µmol/l | 19.4 | 15.9 | 22.9 | 1.75 | 3.50 | Colorimetric without ppt. |
| | µg/dl | 108 | 88.9 | 127 | 9.55 | 19.10 | |
| LD (LDH) | U/l | 214 | 182 | 246 | 16.00 | 32.00 | L->P IFCC 37°C |
| Lipase | U/l | 153 | 123 | 183 | 15.00 | 30.00 | Colorimetric Siemens Dimension (LIPL Kit) 37°C |
| Lithium | mmol/l | 1.07 | 0.94 | 1.20 | 0.06 | 0.13 | Spectrophotometric |
| | mg/dl | 0.743 | 0.654 | 0.832 | 0.04 | 0.09 | |
| Magnesium | mmol/l | 0.87 | 0.76 | 0.97 | 0.05 | 0.10 | Methylthymol blue |
| | mg/dl | 2.11 | 1.86 | 2.36 | 0.13 | 0.25 | |
| Phosphate Inorganic | mmol/l | 1.40 | 1.19 | 1.61 | 0.11 | 0.21 | Phosphomolybdate UV |
| | mg/dl | 4.34 | 3.69 | 4.99 | 0.33 | 0.65 | |
| Potassium | mmol/l | 3.91 | 3.60 | 4.22 | 0.16 | 0.31 | ISE method - indirect |
| Protein Total | g/l | 60.0 | 48.0 | 72.0 | 6.00 | 12.00 | Biuret reaction end point |
| | g/dl | 6.00 | 4.80 | 7.20 | 0.60 | 1.20 | |
| Sodium | mmol/l | 139 | 132 | 146 | 3.50 | 7.00 | ISE method - indirect |
| Triglycerides | mmol/l | 1.03 | 0.86 | 1.20 | 0.08 | 0.17 | L/G Kinase EP. no correction |
| | mg/dl | 91.2 | 76.5 | 106 | 7.35 | 14.70 | |



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## Siemens Dimension EXL

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Triglycerides | mmol/l | 0.98 | 0.83 | 1.14 | 0.08 | 0.16 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 87.0 | 73.1 | 101 | 6.95 | 13.90 | |
| Uric Acid (Urate) | mmol/l | 0.35 | 0.30 | 0.39 | 0.02 | 0.05 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.81 | 5.06 | 6.56 | 0.38 | 0.75 | |
| | mmol/l | 0.34 | 0.30 | 0.39 | 0.02 | 0.05 | Spectrophotometric at 280-290 |
| | mg/dl | 5.76 | 5.01 | 6.51 | 0.38 | 0.75 | |
| Urea | mmol/l | 7.35 | 6.25 | 8.45 | 0.55 | 1.10 | Urease kinetic |
| | mg/dl | 44.2 | 37.6 | 50.8 | 3.30 | 6.60 | |
| | mmol/l | 7.35 | 6.25 | 8.45 | 0.55 | 1.10 | BUN |
| | mg/dl | 20.6 | 17.5 | 23.7 | 1.55 | 3.10 | |



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## SIEMENS DIMENSION RxL/Max/Xpand®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 41.9 | 35.6 | 48.2 | 3.15 | 6.30 | Bromocresol Green |
| | g/dl | 4.19 | 3.56 | 4.82 | 0.32 | 0.63 | |
| | g/l | 41.3 | 35.1 | 47.5 | 3.10 | 6.20 | Bromocresol Purple |
| | g/dl | 4.13 | 3.51 | 4.75 | 0.31 | 0.62 | |
| Alkaline Phosphatase | U/l | 108 | 92 | 124 | 8.00 | 16.00 | Siemens Dimension AMP buffer 37°C |
| | U/l | 117 | 99 | 135 | 9.00 | 18.00 | AMP optimised to IFCC 37°C |
| | U/l | 118 | 100 | 136 | 9.00 | 18.00 | Randox AMP 37°C |
| ALT (GPT) | U/l | 44 | 35 | 53 | 4.50 | 9.00 | Tris buffer with P5P 37°C |
| | U/l | 49 | 39 | 59 | 5.00 | 10.00 | Siemens Dade Standard Non IFCC Correlated 37°C |
| Amylase Total | U/l | 99 | 84 | 114 | 7.50 | 15.00 | Siemens 2-chloro-pNPG3 37°C |
| AST (GOT) | U/l | 48 | 38 | 58 | 5.00 | 10.00 | Tris buffer with P5P 37°C |
| | U/l | 49 | 39 | 59 | 5.00 | 10.00 | Siemens Dade Standard Non IFCC Correlated 37°C |
| Bilirubin Direct | µmol/l | 13.8 | 10.9 | 16.7 | 1.45 | 2.90 | Diazo with Sulphanilic Acid |
| | mg/dl | 0.807 | 0.638 | 0.976 | 0.08 | 0.17 | |
| Bilirubin Total | µmol/l | 29.7 | 23.5 | 35.9 | 3.10 | 6.20 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.74 | 1.37 | 2.11 | 0.19 | 0.37 | |
| Calcium | mmol/l | 2.18 | 1.96 | 2.40 | 0.11 | 0.22 | Cresolphthalein complexone |
| | mg/dl | 8.74 | 7.86 | 9.62 | 0.44 | 0.88 | |
| Cholesterol | mmol/l | 3.35 | 2.91 | 3.79 | 0.22 | 0.44 | Dimension-Siemens reagents |
| | mg/dl | 129 | 112 | 146 | 8.50 | 17.00 | |
| Chloride | mmol/l | 93.9 | 86.4 | 101 | 3.75 | 7.50 | ISE indirect |



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## SIEMENS DIMENSION RxL/Max/Xpand®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| CK Total | U/l | 175 | 143 | 207 | 16.00 | 32.00 | CK-NAC (IFCC) 37°C |
| | U/l | 182 | 149 | 215 | 16.50 | 33.00 | Dithioerythritol 37°C |
| | U/l | 180 | 147 | 213 | 16.50 | 33.00 | Dithioerythritol (DTE) IFCC correlated 37°C |
| Creatinine | µmol/l | 135 | 108 | 162 | 13.50 | 27.00 | Alkaline picrate no deproteinization |
| | mg/dl | 1.53 | 1.22 | 1.84 | 0.16 | 0.31 | |
| | µmol/l | 121 | 96.9 | 145 | 12.05 | 24.10 | Randox Enzymatic UV method |
| | mg/dl | 1.37 | 1.09 | 1.65 | 0.14 | 0.28 | |
| | µmol/l | 129 | 104 | 154 | 12.50 | 25.00 | Creatinine PAP method |
| | mg/dl | 1.46 | 1.18 | 1.74 | 0.14 | 0.28 | |
| | µmol/l | 136 | 109 | 163 | 13.50 | 27.00 | Jaffe rate blanked |
| | mg/dl | 1.54 | 1.23 | 1.85 | 0.16 | 0.31 | |
| | µmol/l | 140 | 112 | 168 | 14.00 | 28.00 | Jaffe rate blanked compensated (-18 µmol/l) |
| | mg/dl | 1.58 | 1.27 | 1.89 | 0.16 | 0.31 | |
| | µmol/l | 130 | 104 | 156 | 13.00 | 26.00 | IDMS traceable |
| | mg/dl | 1.47 | 1.18 | 1.76 | 0.15 | 0.29 | |
| gamma-GT | U/l | 62 | 53 | 71 | 4.50 | 9.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 71 | 60 | 82 | 5.50 | 11.00 | Siemens Dimension (non IFCC) 37°C |
| Glucose | mmol/l | 6.24 | 5.30 | 7.18 | 0.47 | 0.94 | Hexokinase |
| | mg/dl | 112 | 95.5 | 129 | 8.25 | 16.50 | |
| HDL - Cholesterol | mmol/l | 1.30 | 1.10 | 1.50 | 0.10 | 0.20 | Direct HDL PPD |
| | mg/dl | 50.2 | 42.5 | 57.9 | 3.85 | 7.70 | |
| | mmol/l | 1.25 | 1.06 | 1.44 | 0.10 | 0.19 | Direct HDL PEGME |
| | mg/dl | 48.3 | 40.9 | 55.7 | 3.70 | 7.40 | |
| | mmol/l | 1.24 | 1.06 | 1.42 | 0.09 | 0.18 | Direct Clearance Method |
| | mg/dl | 47.9 | 40.9 | 54.9 | 3.50 | 7.00 | |



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## SIEMENS DIMENSION RxL/Max/Xpand®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Iron | µmol/l | 20.0 | 16.4 | 23.6 | 1.80 | 3.60 | Colorimetric with ppt. |
| | µg/dl | 112 | 91.7 | 132 | 10.15 | 20.30 | |
| | µmol/l | 18.8 | 15.4 | 22.2 | 1.70 | 3.40 | Colorimetric without ppt. |
| | µg/dl | 105 | 86.1 | 124 | 9.45 | 18.90 | |
| LD (LDH) | U/l | 222 | 189 | 255 | 16.50 | 33.00 | Siemens Dimension L-P Non IFCC 37°C |
| | U/l | 216 | 184 | 248 | 16.00 | 32.00 | L->P IFCC 37°C |
| Lipase | U/l | 157 | 126 | 188 | 15.50 | 31.00 | Colorimetric Siemens Dimension (LIPL Kit) 37°C |
| Magnesium | mmol/l | 0.88 | 0.77 | 0.99 | 0.05 | 0.11 | Methylthymol blue |
| | mg/dl | 2.14 | 1.88 | 2.40 | 0.13 | 0.26 | |
| Phosphate Inorganic | mmol/l | 1.41 | 1.20 | 1.62 | 0.11 | 0.21 | Phosphomolybdate enzymatic |
| | mg/dl | 4.37 | 3.72 | 5.02 | 0.33 | 0.65 | |
| | mmol/l | 1.39 | 1.19 | 1.59 | 0.10 | 0.20 | Phosphomolybdate UV |
| | mg/dl | 4.31 | 3.69 | 4.93 | 0.31 | 0.62 | |
| Potassium | mmol/l | 3.89 | 3.57 | 4.21 | 0.16 | 0.32 | ISE method - indirect |
| Protein Total | g/l | 59.3 | 47.4 | 71.2 | 5.95 | 11.90 | Biuret reaction end point |
| | g/dl | 5.93 | 4.74 | 7.12 | 0.60 | 1.19 | |
| Sodium | mmol/l | 139 | 132 | 146 | 3.50 | 7.00 | ISE method - indirect |
| TIBC | µmol/l | 43.2 | 34.1 | 52.3 | 4.55 | 9.10 | Removal of excess free iron |
| | µg/dl | 241 | 191 | 291 | 25.00 | 50.00 | |
| | µmol/l | 40.6 | 32.1 | 49.1 | 4.25 | 8.50 | Direct Colorimetric |
| | µg/dl | 227 | 179 | 275 | 24.00 | 48.00 | |
| Triglycerides | mmol/l | 1.00 | 0.84 | 1.16 | 0.08 | 0.16 | Lipase/GPO-PAP no correction |
| | mg/dl | 88.4 | 74.3 | 103 | 7.05 | 14.10 | |
| | mmol/l | 0.98 | 0.83 | 1.14 | 0.08 | 0.16 | L/G Kinase EP. no correction |
| | mg/dl | 86.9 | 73.0 | 101 | 6.95 | 13.90 | |



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## SIEMENS DIMENSION RxL/Max/Xpand®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Triglycerides | mmol/l | 0.99 | 0.84 | 1.15 | 0.08 | 0.16 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 88.0 | 73.9 | 102 | 7.05 | 14.10 | |
| Uric Acid (Urate) | mmol/l | 0.34 | 0.30 | 0.39 | 0.02 | 0.04 | Uricase catalase 340nm |
| | mg/dl | 5.75 | 5.01 | 6.49 | 0.37 | 0.74 | |
| | mmol/l | 0.34 | 0.29 | 0.38 | 0.02 | 0.04 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.66 | 4.92 | 6.40 | 0.37 | 0.74 | |
| | mmol/l | 0.34 | 0.29 | 0.38 | 0.02 | 0.04 | Spectrophotometric at 280-290 |
| | mg/dl | 5.66 | 4.92 | 6.40 | 0.37 | 0.74 | |
| Urea | mmol/l | 7.35 | 6.25 | 8.45 | 0.55 | 1.10 | Urease end point |
| | mg/dl | 44.2 | 37.6 | 50.8 | 3.30 | 6.60 | |
| | mmol/l | 7.44 | 6.32 | 8.56 | 0.56 | 1.12 | Urease kinetic |
| | mg/dl | 44.7 | 38.0 | 51.4 | 3.35 | 6.70 | |
| | mmol/l | 7.44 | 6.32 | 8.56 | 0.56 | 1.12 | BUN |
| | mg/dl | 20.9 | 17.8 | 24.0 | 1.55 | 3.10 | |



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## Siemens Dimension Vista

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 41.7 | 35.4 | 48.0 | 3.15 | 6.30 | Bromocresol Purple |
| | g/dl | 4.17 | 3.54 | 4.80 | 0.32 | 0.63 | |
| Alkaline Phosphatase | U/l | 117 | 99 | 135 | 9.00 | 18.00 | AMP optimised to IFCC 37°C |
| ALT (GPT) | U/l | 40 | 32 | 48 | 4.00 | 8.00 | Tris buffer with P5P 37°C |
| | U/l | 39 | 32 | 46 | 3.50 | 7.00 | Siemens Dade Standard Non IFCC Correlated 37°C |
| Amylase Total | U/l | 99 | 84 | 114 | 7.50 | 15.00 | Siemens 2-chloro-pNPG3 37°C |
| AST (GOT) | U/l | 47 | 37 | 57 | 5.00 | 10.00 | Tris buffer with P5P 37°C |
| | U/l | 45 | 36 | 54 | 4.50 | 9.00 | Siemens Dade Standard Non IFCC Correlated 37°C |
| Bicarbonate | mmol/l | 14.8 | 11.7 | 17.9 | 1.55 | 3.10 | Enzymatic |
| Bilirubin Direct | µmol/l | 13.9 | 11.0 | 16.8 | 1.45 | 2.90 | Diazo with Sulphanilic Acid |
| | mg/dl | 0.813 | 0.644 | 0.982 | 0.08 | 0.17 | |
| Bilirubin Total | µmol/l | 29.1 | 23.0 | 35.2 | 3.05 | 6.10 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.70 | 1.35 | 2.05 | 0.18 | 0.35 | |
| Calcium | mmol/l | 2.21 | 1.99 | 2.43 | 0.11 | 0.22 | Cresolphthalein complexone |
| | mg/dl | 8.86 | 7.98 | 9.74 | 0.44 | 0.88 | |
| Cholesterol | mmol/l | 3.38 | 2.94 | 3.82 | 0.22 | 0.44 | Dimension-Siemens reagents |
| | mg/dl | 130 | 113 | 147 | 8.50 | 17.00 | |
| Chloride | mmol/l | 97.7 | 89.9 | 106 | 3.90 | 7.80 | ISE indirect |
| CK Total | U/l | 183 | 150 | 216 | 16.50 | 33.00 | CK-NAC (IFCC) 37°C |
| | U/l | 176 | 144 | 208 | 16.00 | 32.00 | Dithioerythritol 37°C |
| | U/l | 179 | 146 | 212 | 16.50 | 33.00 | Dithioerythritol (DTE) IFCC correlated 37°C |



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## Siemens Dimension Vista

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Creatinine | µmol/l | 137 | 110 | 164 | 13.50 | 27.00 | Alkaline picrate no deproteinization |
| | mg/dl | 1.55 | 1.24 | 1.86 | 0.16 | 0.31 | |
| | µmol/l | 127 | 102 | 152 | 12.50 | 25.00 | Randox Enzymatic UV method |
| | mg/dl | 1.44 | 1.15 | 1.73 | 0.15 | 0.29 | |
| | µmol/l | 128 | 102 | 154 | 13.00 | 26.00 | IDMS traceable |
| | mg/dl | 1.45 | 1.15 | 1.75 | 0.15 | 0.30 | |
| gamma-GT | U/l | 68 | 58 | 78 | 5.00 | 10.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 69 | 58 | 80 | 5.50 | 11.00 | Siemens Dimension (non IFCC) 37°C |
| Glucose | mmol/l | 5.97 | 5.07 | 6.87 | 0.45 | 0.90 | Hexokinase |
| | mg/dl | 108 | 91.4 | 125 | 8.30 | 16.60 | |
| HDL - Cholesterol | mmol/l | 1.26 | 1.07 | 1.45 | 0.10 | 0.19 | Direct HDL PEGME |
| | mg/dl | 48.6 | 41.3 | 55.9 | 3.65 | 7.30 | |
| Iron | µmol/l | 19.4 | 15.9 | 22.9 | 1.75 | 3.50 | Colorimetric without ppt. |
| | µg/dl | 108 | 88.9 | 127 | 9.55 | 19.10 | |
| Lactate | mmol/l | 1.45 | 1.19 | 1.71 | 0.13 | 0.26 | UV LDH |
| | mg/dl | 13.1 | 10.7 | 15.5 | 1.20 | 2.40 | |
| LD (LDH) | U/l | 222 | 188 | 256 | 17.00 | 34.00 | L->P IFCC 37°C |
| Lipase | U/l | 160 | 128 | 192 | 16.00 | 32.00 | Colorimetric Siemens Dimension (LIPL Kit) 37°C |
| Lithium | mmol/l | 1.11 | 0.97 | 1.25 | 0.07 | 0.14 | Spectrophotometric |
| | mg/dl | 0.771 | 0.675 | 0.867 | 0.05 | 0.10 | |
| Magnesium | mmol/l | 0.84 | 0.74 | 0.94 | 0.05 | 0.10 | Methylthymol blue |
| | mg/dl | 2.04 | 1.79 | 2.29 | 0.13 | 0.25 | |
| Phosphate Inorganic | mmol/l | 1.37 | 1.17 | 1.57 | 0.10 | 0.20 | Phosphomolybdate UV |
| | mg/dl | 4.25 | 3.63 | 4.87 | 0.31 | 0.62 | |
| Potassium | mmol/l | 3.87 | 3.56 | 4.18 | 0.16 | 0.31 | ISE method - indirect |



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## Siemens Dimension Vista

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Protein Total | g/l | 59.2 | 47.3 | 71.1 | 5.95 | 11.90 | Biuret reaction end point |
| | g/dl | 5.92 | 4.73 | 7.11 | 0.60 | 1.19 | |
| Sodium | mmol/l | 138 | 131 | 145 | 3.50 | 7.00 | ISE method - indirect |
| Triglycerides | mmol/l | 1.14 | 0.96 | 1.32 | 0.09 | 0.18 | Lipase/GPO-PAP no correction |
| | mg/dl | 101 | 84.8 | 117 | 8.10 | 16.20 | |
| Uric Acid (Urate) | mmol/l | 0.32 | 0.28 | 0.37 | 0.02 | 0.04 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.44 | 4.74 | 6.14 | 0.35 | 0.70 | |
| | mmol/l | 0.32 | 0.28 | 0.36 | 0.02 | 0.04 | Spectrophotometric at 280-290 |
| | mg/dl | 5.33 | 4.64 | 6.02 | 0.35 | 0.69 | |
| Urea | mmol/l | 7.48 | 6.36 | 8.60 | 0.56 | 1.12 | Urease kinetic |
| | mg/dl | 45.0 | 38.2 | 51.8 | 3.40 | 6.80 | |
| | mmol/l | 7.48 | 6.36 | 8.60 | 0.56 | 1.12 | BUN |
| | mg/dl | 21.0 | 17.9 | 24.1 | 1.55 | 3.10 | |



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## VITALAB FLEXOR®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 40.5 | 34.4 | 46.6 | 3.05 | 6.10 | Bromocresol Green |
| | g/dl | 4.05 | 3.44 | 4.66 | 0.31 | 0.61 | |
| ALT (GPT) | U/l | 39 | 31 | 47 | 4.00 | 8.00 | Tris buffer without P5P 37°C |
| AST (GOT) | U/l | 39 | 31 | 47 | 4.00 | 8.00 | Tris buffer without P5P 37°C |
| Bilirubin Direct | µmol/l | 20.0 | 15.8 | 24.2 | 2.10 | 4.20 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.17 | 0.924 | 1.42 | 0.12 | 0.25 | |
| Bilirubin Total | µmol/l | 32.6 | 25.8 | 39.4 | 3.40 | 6.80 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.91 | 1.51 | 2.31 | 0.20 | 0.40 | |
| Calcium | mmol/l | 2.25 | 2.03 | 2.47 | 0.11 | 0.22 | Cresolphthalein complexone |
| | mg/dl | 9.02 | 8.14 | 9.90 | 0.44 | 0.88 | |
| | mmol/l | 2.33 | 2.09 | 2.57 | 0.12 | 0.24 | Arsenazo III |
| | mg/dl | 9.34 | 8.38 | 10.3 | 0.48 | 0.96 | |
| Cholesterol | mmol/l | 4.12 | 3.59 | 4.65 | 0.27 | 0.53 | Cholesterol Oxidase |
| | mg/dl | 159 | 139 | 179 | 10.00 | 20.00 | |
| Creatinine | µmol/l | 120 | 96.1 | 144 | 11.95 | 23.90 | Alkaline picrate no deproteinization |
| | mg/dl | 1.36 | 1.09 | 1.63 | 0.14 | 0.27 | |
| gamma-GT | U/l | 52 | 45 | 59 | 3.50 | 7.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| Glucose | mmol/l | 6.48 | 5.50 | 7.46 | 0.49 | 0.98 | Glucose oxidase |
| | mg/dl | 117 | 99.1 | 135 | 8.95 | 17.90 | |
| LD (LDH) | U/l | 209 | 178 | 240 | 15.50 | 31.00 | L->P IFCC 37°C |
| Protein Total | g/l | 62.3 | 49.8 | 74.8 | 6.25 | 12.50 | Biuret reaction end point |
| | g/dl | 6.23 | 4.98 | 7.48 | 0.63 | 1.25 | |



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## VITALAB FLEXOR®

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Triglycerides | mmol/l | 1.08 | 0.91 | 1.25 | 0.09 | 0.17 | Lipase/GPO-PAP no correction |
| | mg/dl | 95.6 | 80.3 | 111 | 7.65 | 15.30 | |
| Urea | mmol/l | 7.59 | 6.45 | 8.73 | 0.57 | 1.14 | Urease kinetic |
| | mg/dl | 45.6 | 38.8 | 52.4 | 3.40 | 6.80 | |
| | mmol/l | 7.59 | 6.45 | 8.73 | 0.57 | 1.14 | BUN |
| | mg/dl | 21.3 | 18.1 | 24.5 | 1.60 | 3.20 | |



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## Wiener Lab CB 350i

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Albumin | g/l | 39.8 | 33.8 | 45.8 | 3.00 | 6.00 | Bromocresol Green |
| | g/dl | 3.98 | 3.38 | 4.58 | 0.30 | 0.60 | |
| ALT (GPT) | U/l | 38 | 30 | 46 | 4.00 | 8.00 | Tris buffer without P5P 37°C |
| | U/l | 28 | 22 | 34 | 3.00 | 6.00 | Tris buffer without P5P 30°C |
| | U/l | 21 | 17 | 25 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| AST (GOT) | U/l | 35 | 28 | 42 | 3.50 | 7.00 | Tris buffer without P5P 37°C |
| | U/l | 24 | 19 | 29 | 2.50 | 5.00 | Tris buffer without P5P 30°C |
| | U/l | 17 | 13 | 21 | 2.00 | 4.00 | Tris buffer without P5P 25°C |
| Bilirubin Total | µmol/l | 24.7 | 19.5 | 29.9 | 2.60 | 5.20 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.44 | 1.14 | 1.74 | 0.15 | 0.30 | |
| Cholesterol | mmol/l | 3.85 | 3.35 | 4.35 | 0.25 | 0.50 | Cholesterol Oxidase |
| | mg/dl | 149 | 129 | 169 | 10.00 | 20.00 | |
| Creatinine | µmol/l | 122 | 97.7 | 146 | 12.15 | 24.30 | Alkaline picrate no deproteinization |
| | mg/dl | 1.38 | 1.10 | 1.66 | 0.14 | 0.28 | |
| Glucose | mmol/l | 6.17 | 5.25 | 7.09 | 0.46 | 0.92 | Glucose oxidase |
| | mg/dl | 111 | 94.6 | 127 | 8.20 | 16.40 | |
| HDL - Cholesterol | mmol/l | 1.22 | 1.04 | 1.40 | 0.09 | 0.18 | Direct Clearance Method |
| | mg/dl | 47.1 | 40.1 | 54.1 | 3.50 | 7.00 | |
| Protein Total | g/l | 62.0 | 49.6 | 74.4 | 6.20 | 12.40 | Biuret reaction end point |
| | g/dl | 6.20 | 4.96 | 7.44 | 0.62 | 1.24 | |
| Triglycerides | mmol/l | 0.97 | 0.81 | 1.13 | 0.08 | 0.16 | Lipase/GPO-PAP no correction |
| | mg/dl | 85.8 | 72.0 | 99.6 | 6.90 | 13.80 | |



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## Wiener Lab CB 350i

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

**Lot. No. 943UN Cat. No. HN1530 / HS2611**

**Size 20 x 5ml / 5 x 5ml Expiry 2018-06**

| | | | Range | | | | |
|---|---|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **1SD** | **2SD** | **methods** |
| Uric Acid (Urate) | mmol/l | 0.36 | 0.31 | 0.41 | 0.02 | 0.05 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 6.03 | 5.24 | 6.82 | 0.40 | 0.79 | |
| Urea | mmol/l | 7.05 | 6.00 | 8.10 | 0.53 | 1.05 | Urease kinetic |
| | mg/dl | 42.4 | 36.1 | 48.7 | 3.15 | 6.30 | |
| | mmol/l | 7.05 | 5.99 | 8.11 | 0.53 | 1.06 | BUN |
| | mg/dl | 19.8 | 16.8 | 22.8 | 1.50 | 3.00 | |



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