

# HUMAN ASSAYED MULTI-SERA - LEVEL 3 (HUM ASY CONTROL 3)

|                        |                             |                       |
|------------------------|-----------------------------|-----------------------|
| <b>CAT. NO.</b> HE1532 | <b>GTIN:</b> 05055273203608 | <b>SIZE:</b> 20 x 5ml |
| <b>CAT. NO.</b> HS2611 | <b>GTIN:</b> 05055273203813 | <b>SIZE:</b> 5 x 5ml  |
| <b>LOT NO.</b> 1079UE  | <b>EXPIRY:</b> 2023-02-28   |                       |

**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 -18°C to -24°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 (25µl - 30µl) of 0.7M Acetic acid solution to 1ml 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 -18°C to -24°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 -18°C to -24°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.

Due to the zinc content in some batches of rubber stoppers, the QC and calibrator material should be aliquoted into polypropylene tubes and stored at +2°C to +8°C to ensure stable zinc levels throughout the stability period.

**PREPARATION FOR USE**

The Human Assayed Multi-sera is supplied lyophilised.

- Carefully reconstitute each vial of lyophilised serum with exactly 5ml 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.
- Refer to the Control section of the individual analyser application.
- Refrigerate any unused material. Prior to reuse, mix contents thoroughly.

**MATERIALS PROVIDED**

Human Assayed Multi-sera - Level 3 20 x 5ml / 5 x 5ml

**MATERIALS REQUIRED BUT NOT PROVIDED**

Volumetric pipette

**ASSIGNED VALUES**

Due to the variation caused by test equipment, test reagents and laboratory technique, the quoted ranges are provided for guidance. It is recommended that these ranges are used until each laboratory has established its own ranges, based on individual laboratory requirements.

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  $\pm 2S.D.$

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](mailto:Technical.Services@randox.com).

**NOTES**

® All trademarks recognised.

- (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.

| The presence of a vertical bar in the margin indicates a technical update from the previous revision. |

|    |     |
|----|-----|
| EC | REP |
|----|-----|

Randox Teoranta, Meenmore,  
Dungloe, Donegal,  
F94 TV06, Ireland

Rev. 28 Oct '21 me

**Abbott Alinity/ Architect c/ci Systems®**
**ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)**

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte              | unit   | Target | low  | high | 1SD   | 2SD   | methods                              |
|----------------------|--------|--------|------|------|-------|-------|--------------------------------------|
| Albumin              | g/l    | 31.3   | 26.6 | 36.0 | 2.35  | 4.70  | Bromocresol Green                    |
|                      | g/dl   | 3.13   | 2.66 | 3.60 | 0.24  | 0.47  |                                      |
|                      | g/l    | 30.1   | 25.5 | 34.7 | 2.30  | 4.60  | Bromocresol Purple                   |
|                      | g/dl   | 3.01   | 2.55 | 3.47 | 0.23  | 0.46  |                                      |
| Alkaline Phosphatase | U/l    | 338    | 287  | 389  | 25.50 | 51.00 | AMP optimised to IFCC 37°C           |
|                      | U/l    | 336    | 286  | 386  | 25.00 | 50.00 | AMP non-optimised 37°C               |
| ALT (GPT)            | U/l    | 143    | 114  | 172  | 14.50 | 29.00 | Tris buffer without P5P 37°C         |
| Amylase Pancreatic   | U/l    | 260    | 221  | 299  | 19.50 | 39.00 | Immuno-inhibition EPS substrate 37°C |
| Amylase Total        | U/l    | 326    | 277  | 375  | 24.50 | 49.00 | Abbott Architect Non-IFCC Cal. 37°C  |
|                      | U/l    | 362    | 308  | 416  | 27.00 | 54.00 | Abbott Architect IFCC Cal. 37°C      |
| AST (GOT)            | U/l    | 137    | 110  | 164  | 13.50 | 27.00 | Tris buffer without P5P 37°C         |
| Bicarbonate          | mmol/l | 13.9   | 11.0 | 16.8 | 1.45  | 2.90  | Enzymatic                            |
| Bile Acids           | µmol/l | 47.6   | 38.0 | 57.2 | 4.80  | 9.60  | Enzymatic Colorimetric               |
| Bilirubin Direct     | µmol/l | 25.8   | 20.4 | 31.2 | 2.70  | 5.40  | Diazo with Sulphanilic Acid          |
|                      | mg/dl  | 1.51   | 1.19 | 1.83 | 0.16  | 0.32  |                                      |
|                      | µmol/l | 26.4   | 20.9 | 31.9 | 2.75  | 5.50  | Diazo with Dichloroaniline (DCA)     |
|                      | mg/dl  | 1.54   | 1.22 | 1.86 | 0.16  | 0.32  |                                      |
| Bilirubin Total      | µmol/l | 91.1   | 72.0 | 110  | 9.55  | 19.10 | Diazo with Dichloroaniline (DCA)     |
|                      | mg/dl  | 5.33   | 4.21 | 6.45 | 0.56  | 1.12  |                                      |
|                      | µmol/l | 90.7   | 71.7 | 110  | 9.50  | 19.00 | Diazo with Sulphanilic Acid          |
|                      | mg/dl  | 5.31   | 4.19 | 6.43 | 0.56  | 1.12  |                                      |

**Abbott Alinity/ Architect c/ci Systems®**
**ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)**

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte         | unit   | Target | low  | high | 1SD    | 2SD     | methods                                       |
|-----------------|--------|--------|------|------|--------|---------|-----------------------------------------------|
| Bilirubin Total | µmol/l | 90.6   | 71.5 | 110  | 9.55   | 19.10   | Diazonium ion                                 |
|                 | mg/dl  | 5.30   | 4.18 | 6.42 | 0.56   | 1.12    |                                               |
| Calcium         | mmol/l | 3.11   | 2.80 | 3.42 | 0.16   | 0.31    | Arsenazo III                                  |
|                 | mg/dl  | 12.5   | 11.2 | 13.8 | 0.65   | 1.30    |                                               |
| Chloride        | mmol/l | 121    | 111  | 131  | 5.00   | 10.00   | ISE indirect                                  |
| Cholesterol     | mmol/l | 7.13   | 6.20 | 8.06 | 0.47   | 0.93    | Cholesterol Oxidase                           |
|                 | mg/dl  | 275    | 239  | 311  | 18.00  | 36.00   |                                               |
| Cholinesterase  | U/l    | 5849   | 4679 | 7019 | 585.00 | 1170.00 | Colorimetric Butyrylthiocholine 37°C          |
| CK Total        | U/l    | 513    | 421  | 605  | 46.00  | 92.00   | CK-NAC serum start (DGKC) 37°C                |
|                 | U/l    | 515    | 422  | 608  | 46.50  | 93.00   |                                               |
| Copper          | µmol/l | 20.0   | 16.0 | 24.0 | 2.00   | 4.00    | Colorimetric                                  |
|                 | µg/dl  | 127    | 102  | 152  | 12.50  | 25.00   |                                               |
| Creatinine      | µmol/l | 397    | 317  | 477  | 40.00  | 80.00   | Alkaline picrate no deproteinization          |
|                 | mg/dl  | 4.49   | 3.58 | 5.40 | 0.46   | 0.91    |                                               |
|                 | µmol/l | 394    | 315  | 473  | 39.50  | 79.00   | Enzymatic UV method                           |
|                 | mg/dl  | 4.45   | 3.56 | 5.34 | 0.45   | 0.89    |                                               |
|                 | µmol/l | 397    | 317  | 477  | 40.00  | 80.00   | Jaffe rate blanked                            |
|                 | mg/dl  | 4.49   | 3.58 | 5.40 | 0.46   | 0.91    |                                               |
|                 | µmol/l | 404    | 323  | 485  | 40.50  | 81.00   | IDMS traceable                                |
|                 | mg/dl  | 4.57   | 3.65 | 5.49 | 0.46   | 0.92    |                                               |
| gamma-GT        | U/l    | 170    | 144  | 196  | 13.00  | 26.00   | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
|                 | U/l    | 168    | 142  | 194  | 13.00  | 26.00   |                                               |
| Glucose         | mmol/l | 15.3   | 13.0 | 17.6 | 1.15   | 2.30    | Hexokinase                                    |
|                 | mg/dl  | 276    | 234  | 318  | 21.00  | 42.00   |                                               |
|                 | mmol/l | 15.0   | 12.7 | 17.3 | 1.15   | 2.30    | Glucose oxidase                               |
|                 | mg/dl  | 270    | 229  | 311  | 20.50  | 41.00   |                                               |

**Abbott Alinity/ Architect c/ci Systems®**
**ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)**

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte             | unit    | Target | low  | high  | 1SD   | 2SD   | methods                      |                           |
|---------------------|---------|--------|------|-------|-------|-------|------------------------------|---------------------------|
| HDL - Cholesterol   | mmol/l  | 2.70   | 2.30 | 3.10  | 0.20  | 0.40  | Direct HDL PPD               |                           |
|                     | mg/dl   | 104    | 88.8 | 119   | 7.60  | 15.20 |                              |                           |
|                     | mmol/l  | 2.62   | 2.23 | 3.01  | 0.20  | 0.39  | Direct Clearance Method      |                           |
|                     | mg/dl   | 101    | 86.1 | 116   | 7.45  | 14.90 |                              |                           |
| Iron                | mmol/l  | 2.60   | 2.21 | 2.99  | 0.20  | 0.39  | HDL - Ultra                  |                           |
|                     | mg/dl   | 100    | 85.3 | 115   | 7.35  | 14.70 |                              |                           |
|                     | Iron    | µmol/l | 38.0 | 31.2  | 44.8  | 3.40  | 6.80                         | Colorimetric with ppt.    |
|                     |         | µg/dl  | 212  | 174   | 250   | 19.00 | 38.00                        | Colorimetric without ppt. |
| µmol/l              |         | 38.2   | 31.3 | 45.1  | 3.45  | 6.90  |                              |                           |
| µg/dl               | 214     | 175    | 253  | 19.50 | 39.00 |       |                              |                           |
| Lactate             | mmol/l  | 5.67   | 4.65 | 6.69  | 0.51  | 1.02  | Colorimetric Lactate Oxidase |                           |
|                     | mg/dl   | 51.1   | 41.9 | 60.3  | 4.60  | 9.20  |                              |                           |
| LD (LDH)            | U/l     | 364    | 310  | 418   | 27.00 | 54.00 | L->P 37°C                    |                           |
|                     | U/l     | 363    | 308  | 418   | 27.50 | 55.00 | L->P IFCC 37°C               |                           |
| Lipase              | U/l     | 56     | 45   | 67    | 5.50  | 11.00 | Other Colorimetric 37°C      |                           |
| Lithium             | mmol/l  | 2.03   | 1.79 | 2.27  | 0.12  | 0.24  | Spectrophotometric           |                           |
|                     | mg/dl   | 1.41   | 1.24 | 1.58  | 0.09  | 0.17  |                              |                           |
| Magnesium           | mmol/l  | 1.79   | 1.58 | 2.00  | 0.11  | 0.21  | Arsenazo III                 |                           |
|                     | mg/dl   | 4.35   | 3.84 | 4.86  | 0.26  | 0.51  |                              |                           |
|                     | mmol/l  | 1.78   | 1.57 | 1.99  | 0.11  | 0.21  | Enzymatic                    |                           |
| mg/dl               | 4.33    | 3.82   | 4.84 | 0.26  | 0.51  |       |                              |                           |
| Osmolality          | mOsm/kg | 348    | 278  | 418   | 35.00 | 70.00 | Calculated                   |                           |
| Phosphate Inorganic | mmol/l  | 2.21   | 1.88 | 2.54  | 0.17  | 0.33  | Phosphomolybdate enzymatic   |                           |
|                     | mg/dl   | 6.85   | 5.83 | 7.87  | 0.51  | 1.02  |                              |                           |


**Abbott Alinity/ Architect c/ci Systems®**
**ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)**

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD   | methods                       |
|---------------------|--------|--------|------|------|-------|-------|-------------------------------|
| Phosphate Inorganic | mmol/l | 2.21   | 1.88 | 2.54 | 0.17  | 0.33  | Phosphomolybdate UV           |
|                     | mg/dl  | 6.85   | 5.83 | 7.87 | 0.51  | 1.02  |                               |
| Potassium           | mmol/l | 6.33   | 5.82 | 6.84 | 0.26  | 0.51  | ISE method - indirect         |
| Protein Total       | g/l    | 45.9   | 36.8 | 55.0 | 4.55  | 9.10  | Biuret reaction end point     |
|                     | g/dl   | 4.59   | 3.68 | 5.50 | 0.46  | 0.91  |                               |
|                     | g/l    | 45.1   | 36.1 | 54.1 | 4.50  | 9.00  | Biuret reaction kinetic       |
|                     | g/dl   | 4.51   | 3.61 | 5.41 | 0.45  | 0.90  |                               |
| Sodium              | mmol/l | 159    | 151  | 167  | 4.00  | 8.00  | ISE method - indirect         |
| TIBC                | µmol/l | 43.2   | 34.2 | 52.2 | 4.50  | 9.00  | FE+UIBC(saturation with iron) |
|                     | µg/dl  | 241    | 191  | 291  | 25.00 | 50.00 |                               |
|                     | µmol/l | 39.6   | 31.3 | 47.9 | 4.15  | 8.30  | Calculated from Transferrin   |
|                     | µg/dl  | 221    | 175  | 267  | 23.00 | 46.00 |                               |
| Triglycerides       | mmol/l | 2.98   | 2.51 | 3.45 | 0.24  | 0.47  | Lipase/GPO-PAP no correction  |
|                     | mg/dl  | 264    | 222  | 306  | 21.00 | 42.00 |                               |
|                     | mmol/l | 2.98   | 2.50 | 3.46 | 0.24  | 0.48  | L/G Kinase EP. no correction  |
|                     | mg/dl  | 264    | 221  | 307  | 21.50 | 43.00 |                               |
|                     | mmol/l | 2.90   | 2.44 | 3.36 | 0.23  | 0.46  | Lipase/Glycerol Dehydrogenase |
|                     | mg/dl  | 257    | 216  | 298  | 20.50 | 41.00 |                               |
| UIBC                | µmol/l | 4.50   | 3.69 | 5.31 | 0.41  | 0.81  | Direct Colorimetric           |
|                     | µg/dl  | 25.2   | 20.6 | 29.8 | 2.30  | 4.60  |                               |
| Urea                | mmol/l | 19.6   | 16.7 | 22.5 | 1.45  | 2.90  | Urease end point              |
|                     | mg/dl  | 118    | 100  | 136  | 9.00  | 18.00 |                               |
|                     | mmol/l | 19.8   | 16.9 | 22.7 | 1.45  | 2.90  | Urease kinetic                |
|                     | mg/dl  | 119    | 102  | 136  | 8.50  | 17.00 |                               |
|                     | mmol/l | 19.8   | 16.8 | 22.8 | 1.50  | 3.00  | BUN                           |
|                     | mg/dl  | 55.6   | 47.3 | 63.9 | 4.15  | 8.30  |                               |

**Abbott Alinity/ Architect c/ci Systems®****ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)**

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte           | unit   | Target | low  | high | 1SD  | 2SD  | methods                                           |
|-------------------|--------|--------|------|------|------|------|---------------------------------------------------|
| Uric Acid (Urate) | mmol/l | 0.56   | 0.49 | 0.63 | 0.04 | 0.07 | Uricase peroxidase with ascorbate oxidase         |
|                   | mg/dl  | 9.37   | 8.16 | 10.6 | 0.61 | 1.21 |                                                   |
|                   | mmol/l | 0.56   | 0.48 | 0.63 | 0.04 | 0.07 | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 9.32   | 8.11 | 10.5 | 0.61 | 1.21 |                                                   |
|                   | mmol/l | 0.56   | 0.49 | 0.63 | 0.04 | 0.07 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 9.39   | 8.16 | 10.6 | 0.62 | 1.23 |                                                   |

## Beckman Coulter AU Series®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte              | unit   | Target | low   | high | 1SD   | 2SD   | methods                               |
|----------------------|--------|--------|-------|------|-------|-------|---------------------------------------|
| Albumin              | g/l    | 29.2   | 24.9  | 33.5 | 2.15  | 4.30  | Bromocresol Green                     |
|                      | g/dl   | 2.92   | 2.49  | 3.35 | 0.22  | 0.43  |                                       |
|                      | g/l    | 30.2   | 25.7  | 34.7 | 2.25  | 4.50  | Bromocresol Purple                    |
|                      | g/dl   | 3.02   | 2.57  | 3.47 | 0.23  | 0.45  |                                       |
| Alkaline Phosphatase | U/l    | 511    | 434   | 588  | 38.50 | 77.00 | Diethanolamine buffer DEA 37°C        |
|                      | U/l    | 400    | 340   | 460  | 30.00 | 60.00 | AMP optimised to IFCC 37°C            |
| ALT (GPT)            | U/l    | 147    | 118   | 176  | 14.50 | 29.00 | Tris buffer without P5P 37°C          |
|                      | U/l    | 147    | 118   | 176  | 14.50 | 29.00 | Beckman (Extinction Coefficient) 37°C |
| Amylase Total        | U/l    | 307    | 261   | 353  | 23.00 | 46.00 | pNP Maltotriose substrates 37°C       |
|                      | U/l    | 295    | 251   | 339  | 22.00 | 44.00 | Beckman Coulter - blocked pNPG7 37°C  |
|                      | U/l    | 291    | 247   | 335  | 22.00 | 44.00 | Beckman CNPG3 (Extinction Coeff) 37°C |
| AST (GOT)            | U/l    | 150    | 120   | 180  | 15.00 | 30.00 | Tris buffer without P5P 37°C          |
|                      | U/l    | 149    | 119   | 179  | 15.00 | 30.00 | Beckman (Extinction Coefficient) 37°C |
| Bicarbonate          | mmol/l | 15.5   | 12.3  | 18.7 | 1.60  | 3.20  | Enzymatic                             |
| Bilirubin Direct     | 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  |                                       |
| Bilirubin Total      | µmol/l | 92.0   | 72.7  | 111  | 9.65  | 19.30 | Diazo with Dichloroaniline (DCA)      |
|                      | mg/dl  | 5.38   | 4.25  | 6.51 | 0.57  | 1.13  |                                       |
|                      | µmol/l | 89.4   | 70.6  | 108  | 9.40  | 18.80 | Dichlorophenyl Diazonium (DPD)        |
|                      | mg/dl  | 5.23   | 4.13  | 6.33 | 0.55  | 1.10  |                                       |
|                      | µmol/l | 88.1   | 69.6  | 107  | 9.25  | 18.50 | DPD (Beckman AU)                      |
|                      | mg/dl  | 5.15   | 4.07  | 6.23 | 0.54  | 1.08  |                                       |





## Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte        | unit   | Target | low  | high | 1SD    | 2SD    | methods                                     |
|----------------|--------|--------|------|------|--------|--------|---------------------------------------------|
| Calcium        | mmol/l | 3.08   | 2.78 | 3.38 | 0.15   | 0.30   | Cresolphthalein complexone                  |
|                | mg/dl  | 12.3   | 11.1 | 13.5 | 0.60   | 1.20   |                                             |
|                | mmol/l | 3.09   | 2.78 | 3.40 | 0.16   | 0.31   | Arsenazo III                                |
|                | mg/dl  | 12.4   | 11.1 | 13.7 | 0.65   | 1.30   |                                             |
| Chloride       | mmol/l | 119    | 110  | 128  | 4.50   | 9.00   | ISE indirect                                |
| Cholesterol    | mmol/l | 7.25   | 6.31 | 8.19 | 0.47   | 0.94   | Cholesterol Oxidase                         |
|                | mg/dl  | 280    | 244  | 316  | 18.00  | 36.00  |                                             |
| Cholinesterase | U/l    | 4793   | 3834 | 5752 | 479.50 | 959.00 | Colorimetric Butyrylthiocholine 37°C        |
| CK Total       | U/l    | 519    | 426  | 612  | 46.50  | 93.00  | CK-NAC (IFCC) 37°C                          |
|                | U/l    | 522    | 428  | 616  | 47.00  | 94.00  | Beckman CK-NAC (Extinction Coeff) 37°C      |
| Creatinine     | µmol/l | 360    | 288  | 432  | 36.00  | 72.00  | Alkaline picrate no deproteinization        |
|                | mg/dl  | 4.07   | 3.25 | 4.89 | 0.41   | 0.82   |                                             |
|                | µmol/l | 389    | 311  | 467  | 39.00  | 78.00  | Enzymatic UV method                         |
|                | mg/dl  | 4.40   | 3.51 | 5.29 | 0.45   | 0.89   |                                             |
|                | µmol/l | 392    | 313  | 471  | 39.50  | 79.00  | Creatinine PAP method                       |
|                | mg/dl  | 4.43   | 3.54 | 5.32 | 0.45   | 0.89   |                                             |
|                | µmol/l | 364    | 291  | 437  | 36.50  | 73.00  | Jaffe rate blanked                          |
|                | mg/dl  | 4.11   | 3.29 | 4.93 | 0.41   | 0.82   |                                             |
|                | µmol/l | 375    | 300  | 450  | 37.50  | 75.00  | Jaffe rate blanked comp. (-26 µmol/l)       |
|                | mg/dl  | 4.24   | 3.39 | 5.09 | 0.43   | 0.85   |                                             |
|                | µmol/l | 364    | 291  | 437  | 36.50  | 73.00  | Jaffe rate blanked compensated (-18 µmol/l) |
|                | mg/dl  | 4.11   | 3.29 | 4.93 | 0.41   | 0.82   |                                             |
|                | µmol/l | 377    | 301  | 453  | 38.00  | 76.00  | IDMS traceable                              |
|                | mg/dl  | 4.26   | 3.40 | 5.12 | 0.43   | 0.86   |                                             |

## Beckman Coulter AU Series®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD   | methods                                             |
|---------------------|--------|--------|------|------|-------|-------|-----------------------------------------------------|
| D-3-Hydroxybutyrate | mmol/l | 1.20   | 1.02 | 1.38 | 0.09  | 0.18  | Tris buffer 100mmol pH 8.5                          |
| gamma-GT            | U/l    | 177    | 151  | 203  | 13.00 | 26.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C       |
|                     | U/l    | 156    | 133  | 179  | 11.50 | 23.00 | Gamma glutamyl-4-nitroanilide 37°C                  |
|                     | U/l    | 173    | 147  | 199  | 13.00 | 26.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                     | U/l    | 171    | 145  | 197  | 13.00 | 26.00 | Beckman Szasz (Extinction Coeff) 37°C               |
| GLDH                | U/l    | 38     | 30   | 46   | 4.00  | 8.00  | Triethanolamine buffer 50 mmol 37°C                 |
| Glucose             | mmol/l | 15.6   | 13.2 | 18.0 | 1.20  | 2.40  | Glucose dehydrogenase                               |
|                     | mg/dl  | 281    | 238  | 324  | 21.50 | 43.00 |                                                     |
|                     | mmol/l | 15.7   | 13.3 | 18.1 | 1.20  | 2.40  | Hexokinase                                          |
|                     | mg/dl  | 283    | 240  | 326  | 21.50 | 43.00 |                                                     |
|                     | mmol/l | 15.8   | 13.5 | 18.1 | 1.15  | 2.30  | Glucose oxidase                                     |
|                     | mg/dl  | 285    | 243  | 327  | 21.00 | 42.00 |                                                     |
| HDL - Cholesterol   | mmol/l | 2.75   | 2.34 | 3.16 | 0.21  | 0.41  | Direct HDL Immunoseparation                         |
|                     | mg/dl  | 106    | 90.3 | 122  | 7.85  | 15.70 |                                                     |
|                     | mmol/l | 2.77   | 2.35 | 3.19 | 0.21  | 0.42  | Direct Clearance Method                             |
|                     | mg/dl  | 107    | 90.7 | 123  | 8.15  | 16.30 |                                                     |
|                     | mmol/l | 2.64   | 2.24 | 3.04 | 0.20  | 0.40  | HDL - Ultra                                         |
|                     | mg/dl  | 102    | 86.5 | 118  | 7.75  | 15.50 |                                                     |
| Iron                | µmol/l | 40.2   | 33.0 | 47.4 | 3.60  | 7.20  | Colorimetric with ppt.                              |
|                     | µg/dl  | 225    | 184  | 266  | 20.50 | 41.00 |                                                     |
|                     | µmol/l | 39.3   | 32.2 | 46.4 | 3.55  | 7.10  | Colorimetric without ppt.                           |
|                     | µg/dl  | 220    | 180  | 260  | 20.00 | 40.00 |                                                     |
| Lactate             | mmol/l | 5.34   | 4.38 | 6.30 | 0.48  | 0.96  | Colorimetric Lactate Oxidase                        |
|                     | mg/dl  | 48.1   | 39.5 | 56.7 | 4.30  | 8.60  |                                                     |
| LD (LDH)            | U/l    | 355    | 302  | 408  | 26.50 | 53.00 | L->P 37°C                                           |

## Beckman Coulter AU Series®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte             | unit    | Target | low  | high | 1SD   | 2SD    | methods                                |
|---------------------|---------|--------|------|------|-------|--------|----------------------------------------|
| LD (LDH)            | U/l     | 800    | 680  | 920  | 60.00 | 120.00 | P->L Scandinavian & Dutch 37°C         |
|                     | U/l     | 366    | 311  | 421  | 27.50 | 55.00  | L->P IFCC 37°C                         |
|                     | U/l     | 353    | 300  | 406  | 26.50 | 53.00  | L to P Beckman (Extinction Coeff) 37°C |
| Lipase              | U/l     | 62     | 49   | 75   | 6.50  | 13.00  | Other Colorimetric 37°C                |
|                     | U/l     | 86     | 69   | 103  | 8.50  | 17.00  | Randox Colorimetric 37°C               |
| Lithium             | mmol/l  | 2.00   | 1.76 | 2.24 | 0.12  | 0.24   | Spectrophotometric                     |
|                     | mg/dl   | 1.39   | 1.22 | 1.56 | 0.09  | 0.17   |                                        |
| Magnesium           | mmol/l  | 1.81   | 1.59 | 2.03 | 0.11  | 0.22   | Xylidyl Blue                           |
|                     | mg/dl   | 4.40   | 3.86 | 4.94 | 0.27  | 0.54   |                                        |
| Osmolality          | mOsm/kg | 362    | 290  | 434  | 36.00 | 72.00  | Calculated                             |
| Phosphate Inorganic | mmol/l  | 2.24   | 1.91 | 2.57 | 0.17  | 0.33   | Phosphomolybdate enzymatic             |
|                     | mg/dl   | 6.94   | 5.92 | 7.96 | 0.51  | 1.02   |                                        |
|                     | mmol/l  | 2.24   | 1.90 | 2.58 | 0.17  | 0.34   | Phosphomolybdate UV                    |
|                     | mg/dl   | 6.94   | 5.89 | 7.99 | 0.53  | 1.05   |                                        |
| Potassium           | mmol/l  | 6.31   | 5.80 | 6.82 | 0.26  | 0.51   | ISE method - indirect                  |
| Protein Total       | g/l     | 45.9   | 36.7 | 55.1 | 4.60  | 9.20   | Biuret reaction end point              |
|                     | g/dl    | 4.59   | 3.67 | 5.51 | 0.46  | 0.92   |                                        |
|                     | g/l     | 46.0   | 36.8 | 55.2 | 4.60  | 9.20   | Biuret reaction kinetic                |
|                     | g/dl    | 4.60   | 3.68 | 5.52 | 0.46  | 0.92   |                                        |
| Sodium              | mmol/l  | 159    | 151  | 167  | 4.00  | 8.00   | ISE method - indirect                  |
| TIBC                | µmol/l  | 40.0   | 31.6 | 48.4 | 4.20  | 8.40   | FE+UIBC(saturation with iron)          |
|                     | µg/dl   | 224    | 177  | 271  | 23.50 | 47.00  |                                        |
| Triglycerides       | mmol/l  | 2.96   | 2.49 | 3.43 | 0.24  | 0.47   | Lipase/GPO-PAP no correction           |
|                     | mg/dl   | 262    | 220  | 304  | 21.00 | 42.00  |                                        |
|                     | mmol/l  | 2.98   | 2.50 | 3.46 | 0.24  | 0.48   | L/G Kinase EP. no correction           |
|                     | mg/dl   | 264    | 221  | 307  | 21.50 | 43.00  |                                        |

**Beckman Coulter AU Series®**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte           | unit   | Target | low  | high | 1SD  | 2SD   | methods                                           |
|-------------------|--------|--------|------|------|------|-------|---------------------------------------------------|
| Urea              | mmol/l | 19.4   | 16.5 | 22.3 | 1.45 | 2.90  | Urease end point                                  |
|                   | mg/dl  | 117    | 99.2 | 135  | 8.90 | 17.80 |                                                   |
|                   | mmol/l | 19.6   | 16.7 | 22.5 | 1.45 | 2.90  | Urease kinetic                                    |
|                   | mg/dl  | 118    | 100  | 136  | 9.00 | 18.00 |                                                   |
|                   | mmol/l | 19.6   | 16.7 | 22.5 | 1.45 | 2.90  | BUN                                               |
|                   | mg/dl  | 55.0   | 46.8 | 63.2 | 4.10 | 8.20  |                                                   |
| Uric Acid (Urate) | mmol/l | 0.58   | 0.50 | 0.65 | 0.04 | 0.08  | Uricase peroxidase with ascorbate oxidase         |
|                   | mg/dl  | 9.66   | 8.40 | 10.9 | 0.63 | 1.26  |                                                   |
|                   | mmol/l | 0.57   | 0.50 | 0.65 | 0.04 | 0.08  | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 9.63   | 8.37 | 10.9 | 0.63 | 1.26  |                                                   |
|                   | mmol/l | 0.55   | 0.48 | 0.63 | 0.04 | 0.07  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 9.29   | 8.08 | 10.5 | 0.61 | 1.21  |                                                   |

## Beckman CX4/5/7/9/LX20®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte              | unit   | Target | low  | high | 1SD   | 2SD   | methods                            |
|----------------------|--------|--------|------|------|-------|-------|------------------------------------|
| Albumin              | g/l    | 32.2   | 27.4 | 37.0 | 2.40  | 4.80  | Bromocresol Green                  |
|                      | g/dl   | 3.22   | 2.74 | 3.70 | 0.24  | 0.48  |                                    |
|                      | g/l    | 30.9   | 26.2 | 35.6 | 2.35  | 4.70  | Bromocresol Purple                 |
|                      | g/dl   | 3.09   | 2.62 | 3.56 | 0.24  | 0.47  |                                    |
| Alkaline Phosphatase | U/l    | 364    | 310  | 418  | 27.00 | 54.00 | p-Nitrophenylphosphate AMP 37°C    |
| ALT (GPT)            | U/l    | 137    | 109  | 165  | 14.00 | 28.00 | Tris buffer without P5P 37°C       |
| Amylase Total        | U/l    | 303    | 258  | 348  | 22.50 | 45.00 | Beckman Synchron AMY7 37°C         |
| AST (GOT)            | U/l    | 135    | 108  | 162  | 13.50 | 27.00 | Tris buffer without P5P 37°C       |
| Bicarbonate          | mmol/l | 14.3   | 11.3 | 17.3 | 1.50  | 3.00  | Differential rate pH change        |
| Bilirubin Total      | µmol/l | 89.0   | 70.3 | 108  | 9.35  | 18.70 | Diazo with Sulphanilic Acid        |
|                      | mg/dl  | 5.21   | 4.11 | 6.31 | 0.55  | 1.10  |                                    |
| Calcium              | mmol/l | 3.01   | 2.71 | 3.31 | 0.15  | 0.30  | Ion selective electrode            |
|                      | mg/dl  | 12.1   | 10.9 | 13.3 | 0.60  | 1.20  |                                    |
| Chloride             | mmol/l | 120    | 111  | 129  | 4.50  | 9.00  | ISE indirect                       |
| Cholesterol          | mmol/l | 7.33   | 6.38 | 8.28 | 0.48  | 0.95  | Cholesterol Oxidase                |
|                      | mg/dl  | 283    | 246  | 320  | 18.50 | 37.00 |                                    |
| CK Total             | U/l    | 535    | 439  | 631  | 48.00 | 96.00 | Monothioglycerol 37°C              |
| Creatinine           | µmol/l | 384    | 307  | 461  | 38.50 | 77.00 | IDMS traceable                     |
|                      | mg/dl  | 4.34   | 3.47 | 5.21 | 0.44  | 0.87  |                                    |
| gamma-GT             | U/l    | 140    | 119  | 161  | 10.50 | 21.00 | Gamma glutamyl-4-nitroanilide 37°C |
| Glucose              | mmol/l | 15.2   | 13.0 | 17.4 | 1.10  | 2.20  | Hexokinase                         |
|                      | mg/dl  | 274    | 234  | 314  | 20.00 | 40.00 |                                    |

## Beckman CX4/5/7/9/LX20®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD   | methods                                 |
|---------------------|--------|--------|------|------|-------|-------|-----------------------------------------|
| Glucose             | mmol/l | 15.0   | 12.8 | 17.2 | 1.10  | 2.20  | Glucose oxidase                         |
|                     | mg/dl  | 270    | 231  | 309  | 19.50 | 39.00 |                                         |
| Iron                | µmol/l | 39.7   | 32.5 | 46.9 | 3.60  | 7.20  | Colorimetric without ppt.               |
|                     | µg/dl  | 222    | 182  | 262  | 20.00 | 40.00 |                                         |
| LD (LDH)            | U/l    | 298    | 253  | 343  | 22.50 | 45.00 | L->P 37°C                               |
| Lipase              | U/l    | 68     | 55   | 81   | 6.50  | 13.00 | Other Colorimetric 37°C                 |
| Magnesium           | mmol/l | 1.76   | 1.55 | 1.97 | 0.11  | 0.21  | Calmagite                               |
|                     | mg/dl  | 4.28   | 3.77 | 4.79 | 0.26  | 0.51  |                                         |
| Phosphate Inorganic | mmol/l | 2.28   | 1.93 | 2.63 | 0.18  | 0.35  | Phosphomolybdate UV                     |
|                     | mg/dl  | 7.07   | 5.98 | 8.16 | 0.55  | 1.09  |                                         |
| Potassium           | mmol/l | 6.33   | 5.83 | 6.83 | 0.25  | 0.50  | ISE method - indirect                   |
| Protein Total       | g/l    | 46.0   | 36.8 | 55.2 | 4.60  | 9.20  | Biuret reaction end point               |
|                     | g/dl   | 4.60   | 3.68 | 5.52 | 0.46  | 0.92  |                                         |
|                     | g/l    | 45.1   | 36.1 | 54.1 | 4.50  | 9.00  | Biuret reaction kinetic                 |
|                     | g/dl   | 4.51   | 3.61 | 5.41 | 0.45  | 0.90  |                                         |
| Sodium              | mmol/l | 158    | 150  | 166  | 4.00  | 8.00  | ISE method - indirect                   |
| Triglycerides       | mmol/l | 3.02   | 2.53 | 3.51 | 0.25  | 0.49  | L/G Kinase EP. no correction            |
|                     | mg/dl  | 267    | 224  | 310  | 21.50 | 43.00 |                                         |
| Urea                | mmol/l | 20.1   | 17.1 | 23.1 | 1.50  | 3.00  | Urease kinetic                          |
|                     | mg/dl  | 121    | 103  | 139  | 9.00  | 18.00 |                                         |
|                     | mmol/l | 20.1   | 17.1 | 23.1 | 1.50  | 3.00  | BUN                                     |
| Uric Acid (Urate)   | mmol/l | 0.54   | 0.47 | 0.61 | 0.04  | 0.07  | Uricase peroxidase no ascorbate oxidase |
|                     | mg/dl  | 9.12   | 7.95 | 10.3 | 0.59  | 1.17  |                                         |

## Beckman DxC600/800®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte              | unit   | Target | low  | high | 1SD   | 2SD   | methods                      |
|----------------------|--------|--------|------|------|-------|-------|------------------------------|
| Albumin              | g/l    | 32.2   | 27.4 | 37.0 | 2.40  | 4.80  | Bromocresol Green            |
|                      | g/dl   | 3.22   | 2.74 | 3.70 | 0.24  | 0.48  |                              |
|                      | g/l    | 30.9   | 26.3 | 35.5 | 2.30  | 4.60  | Bromocresol Purple           |
|                      | g/dl   | 3.09   | 2.63 | 3.55 | 0.23  | 0.46  |                              |
| Alkaline Phosphatase | U/l    | 365    | 311  | 419  | 27.00 | 54.00 | AMP optimised to IFCC 37°C   |
|                      | U/l    | 358    | 304  | 412  | 27.00 | 54.00 | AMP non-optimised 37°C       |
| ALT (GPT)            | U/l    | 136    | 109  | 163  | 13.50 | 27.00 | Tris buffer without P5P 37°C |
|                      | U/l    | 132    | 105  | 159  | 13.50 | 27.00 | Tris buffer SCE 37°C         |
| Amylase Total        | U/l    | 301    | 256  | 346  | 22.50 | 45.00 | Beckman Synchron AMY7 37°C   |
| AST (GOT)            | U/l    | 135    | 108  | 162  | 13.50 | 27.00 | Tris buffer without P5P 37°C |
|                      | U/l    | 132    | 106  | 158  | 13.00 | 26.00 | Tris buffer SCE 37°C         |
| Bicarbonate          | mmol/l | 14.1   | 11.2 | 17.0 | 1.45  | 2.90  | Differential rate pH change  |
|                      | mmol/l | 13.5   | 10.7 | 16.3 | 1.40  | 2.80  | Ion selective electrode      |
| Bilirubin Total      | µmol/l | 89.1   | 70.4 | 108  | 9.35  | 18.70 | Diazo with Sulphanilic Acid  |
|                      | mg/dl  | 5.21   | 4.12 | 6.30 | 0.55  | 1.09  |                              |
| Calcium              | mmol/l | 3.00   | 2.70 | 3.30 | 0.15  | 0.30  | Ion selective electrode      |
|                      | mg/dl  | 12.0   | 10.8 | 13.2 | 0.60  | 1.20  |                              |
| Chloride             | mmol/l | 120    | 110  | 130  | 5.00  | 10.00 | ISE indirect                 |
| Cholesterol          | mmol/l | 7.34   | 6.38 | 8.30 | 0.48  | 0.96  | Cholesterol Oxidase          |
|                      | mg/dl  | 283    | 246  | 320  | 18.50 | 37.00 |                              |
| CK Total             | U/l    | 533    | 437  | 629  | 48.00 | 96.00 | Monothioglycerol 37°C        |

## Beckman DxC600/800®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

| Analyte           | unit   | Target | Range |      | 1SD   | 2SD    | methods                                   |
|-------------------|--------|--------|-------|------|-------|--------|-------------------------------------------|
|                   |        |        | low   | high |       |        |                                           |
| CK Total          | U/l    | 508    | 417   | 599  | 45.50 | 91.00  | Creatinine phosphate substrate Start 37°C |
| Creatinine        | µmol/l | 382    | 305   | 459  | 38.50 | 77.00  | Alkaline picrate no deproteinization      |
|                   | mg/dl  | 4.32   | 3.45  | 5.19 | 0.44  | 0.87   |                                           |
|                   | µmol/l | 383    | 307   | 459  | 38.00 | 76.00  | Jaffe rate blanked                        |
|                   | mg/dl  | 4.33   | 3.47  | 5.19 | 0.43  | 0.86   |                                           |
| IDMS traceable    | µmol/l | 384    | 307   | 461  | 38.50 | 77.00  |                                           |
|                   | mg/dl  | 4.34   | 3.47  | 5.21 | 0.44  | 0.87   |                                           |
| gamma-GT          | U/l    | 138    | 118   | 158  | 10.00 | 20.00  | Gamma glutamyl-4-nitroanilide 37°C        |
| Glucose           | mmol/l | 15.2   | 12.9  | 17.5 | 1.15  | 2.30   | Hexokinase                                |
|                   | mg/dl  | 274    | 232   | 316  | 21.00 | 42.00  |                                           |
|                   | mmol/l | 15.0   | 12.8  | 17.2 | 1.10  | 2.20   | Glucose oxidase                           |
|                   | mg/dl  | 270    | 231   | 309  | 19.50 | 39.00  |                                           |
| HDL - Cholesterol | mmol/l | 2.72   | 2.32  | 3.12 | 0.20  | 0.40   | Direct HDL PPD                            |
|                   | mg/dl  | 105    | 89.6  | 120  | 7.70  | 15.40  |                                           |
|                   | mmol/l | 2.77   | 2.36  | 3.18 | 0.21  | 0.41   | HDL - Ultra                               |
|                   | mg/dl  | 107    | 91.1  | 123  | 7.95  | 15.90  |                                           |
| Iron              | µmol/l | 40.1   | 32.9  | 47.3 | 3.60  | 7.20   | Colorimetric without ppt.                 |
|                   | µg/dl  | 224    | 184   | 264  | 20.00 | 40.00  |                                           |
| Lactate           | mmol/l | 5.08   | 4.16  | 6.00 | 0.46  | 0.92   | Colorimetric Lactate Oxidase              |
|                   | mg/dl  | 45.8   | 37.5  | 54.1 | 4.15  | 8.30   |                                           |
| LD (LDH)          | U/l    | 297    | 252   | 342  | 22.50 | 45.00  | L->P 37°C                                 |
|                   | U/l    | 977    | 830   | 1124 | 73.50 | 147.00 | Pyruvate 1.4 mM - Beckman LD-P 37°C       |
|                   | U/l    | 294    | 250   | 338  | 22.00 | 44.00  | L->P IFCC 37°C                            |
| Lipase            | U/l    | 66     | 53    | 79   | 6.50  | 13.00  | Other Colorimetric 37°C                   |
| Magnesium         | mmol/l | 1.75   | 1.54  | 1.96 | 0.11  | 0.21   | Calmagite                                 |
|                   | mg/dl  | 4.25   | 3.74  | 4.76 | 0.26  | 0.51   |                                           |



## Beckman DxC600/800®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte             | unit              | Target | low  | high | 1SD   | 2SD   | methods                      |                                         |
|---------------------|-------------------|--------|------|------|-------|-------|------------------------------|-----------------------------------------|
| Phosphate Inorganic | mmol/l            | 2.26   | 1.92 | 2.60 | 0.17  | 0.34  | Phosphomolybdate enzymatic   |                                         |
|                     | mg/dl             | 7.01   | 5.95 | 8.07 | 0.53  | 1.06  |                              |                                         |
|                     | mmol/l            | 2.27   | 1.93 | 2.61 | 0.17  | 0.34  | Phosphomolybdate UV          |                                         |
|                     | mg/dl             | 7.04   | 5.98 | 8.10 | 0.53  | 1.06  |                              |                                         |
| Potassium           | mmol/l            | 6.33   | 5.82 | 6.84 | 0.26  | 0.51  | ISE method - indirect        |                                         |
| Protein Total       | g/l               | 46.1   | 36.9 | 55.3 | 4.60  | 9.20  | Biuret reaction end point    |                                         |
|                     | g/dl              | 4.61   | 3.69 | 5.53 | 0.46  | 0.92  |                              |                                         |
|                     | g/l               | 45.1   | 36.1 | 54.1 | 4.50  | 9.00  | Biuret reaction kinetic      |                                         |
|                     | g/dl              | 4.51   | 3.61 | 5.41 | 0.45  | 0.90  |                              |                                         |
| Sodium              | mmol/l            | 158    | 151  | 165  | 3.50  | 7.00  | ISE method - indirect        |                                         |
| Triglycerides       | mmol/l            | 2.98   | 2.51 | 3.45 | 0.24  | 0.47  | Lipase/GPO-PAP no correction |                                         |
|                     | mg/dl             | 264    | 222  | 306  | 21.00 | 42.00 |                              |                                         |
|                     | mmol/l            | 2.98   | 2.50 | 3.46 | 0.24  | 0.48  | L/G Kinase EP. no correction |                                         |
|                     | mg/dl             | 264    | 221  | 307  | 21.50 | 43.00 |                              |                                         |
| Urea                | mmol/l            | 20.1   | 17.1 | 23.1 | 1.50  | 3.00  | Urease end point             |                                         |
|                     | mg/dl             | 121    | 103  | 139  | 9.00  | 18.00 |                              |                                         |
|                     | mmol/l            | 20.1   | 17.1 | 23.1 | 1.50  | 3.00  | Urease kinetic               |                                         |
|                     | mg/dl             | 121    | 103  | 139  | 9.00  | 18.00 |                              |                                         |
|                     | mmol/l            | 20.1   | 17.1 | 23.1 | 1.50  | 3.00  | BUN                          |                                         |
|                     | mg/dl             | 56.4   | 47.9 | 64.9 | 4.25  | 8.50  |                              |                                         |
|                     | Uric Acid (Urate) | mmol/l | 0.54 | 0.47 | 0.61  | 0.04  | 0.07                         | Uricase peroxidase no ascorbate oxidase |
|                     |                   | mg/dl  | 9.11 | 7.91 | 10.3  | 0.60  | 1.20                         |                                         |

## BIOSYSTEMS A15

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte              | unit   | Target | low  | high | 1SD   | 2SD   | methods                              |
|----------------------|--------|--------|------|------|-------|-------|--------------------------------------|
| Albumin              | g/l    | 30.8   | 26.2 | 35.4 | 2.30  | 4.60  | Bromocresol Green                    |
|                      | g/dl   | 3.08   | 2.62 | 3.54 | 0.23  | 0.46  |                                      |
| Alkaline Phosphatase | U/l    | 334    | 284  | 384  | 25.00 | 50.00 | AMP optimised to IFCC 37°C           |
|                      | U/l    | 260    | 221  | 299  | 19.50 | 39.00 | AMP optimised to IFCC 30°C           |
|                      | U/l    | 213    | 181  | 245  | 16.00 | 32.00 | AMP optimised to IFCC 25°C           |
| ALT (GPT)            | U/l    | 150    | 120  | 180  | 15.00 | 30.00 | Tris buffer without P5P 37°C         |
|                      | U/l    | 111    | 89   | 133  | 11.00 | 22.00 | Tris buffer without P5P 30°C         |
|                      | U/l    | 84     | 68   | 100  | 8.00  | 16.00 | Tris buffer without P5P 25°C         |
| AST (GOT)            | U/l    | 155    | 124  | 186  | 15.50 | 31.00 | Tris buffer without P5P 37°C         |
|                      | U/l    | 105    | 84   | 126  | 10.50 | 21.00 | Tris buffer without P5P 30°C         |
|                      | U/l    | 74     | 59   | 89   | 7.50  | 15.00 | Tris buffer without P5P 25°C         |
| Bilirubin Total      | µmol/l | 84.7   | 66.9 | 103  | 8.90  | 17.80 | Diazo with Sulphanilic Acid          |
|                      | mg/dl  | 4.95   | 3.91 | 5.99 | 0.52  | 1.04  |                                      |
| Cholesterol          | mmol/l | 7.32   | 6.37 | 8.27 | 0.48  | 0.95  | Cholesterol Oxidase                  |
|                      | mg/dl  | 283    | 246  | 320  | 18.50 | 37.00 |                                      |
| Creatinine           | µmol/l | 356    | 285  | 427  | 35.50 | 71.00 | Alkaline picrate no deproteinization |
|                      | mg/dl  | 4.02   | 3.22 | 4.82 | 0.40  | 0.80  |                                      |
| Glucose              | mmol/l | 15.9   | 13.5 | 18.3 | 1.20  | 2.40  | Glucose oxidase                      |
|                      | mg/dl  | 287    | 243  | 331  | 22.00 | 44.00 |                                      |
| Protein Total        | g/l    | 46.4   | 37.1 | 55.7 | 4.65  | 9.30  | Biuret reaction end point            |
|                      | g/dl   | 4.64   | 3.71 | 5.57 | 0.47  | 0.93  |                                      |

**BIOSYSTEMS A15**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte           | unit   | Target | low  | high | 1SD   | 2SD   | methods                                   |
|-------------------|--------|--------|------|------|-------|-------|-------------------------------------------|
| Triglycerides     | mmol/l | 2.90   | 2.44 | 3.36 | 0.23  | 0.46  | Lipase/GPO-PAP no correction              |
|                   | mg/dl  | 257    | 216  | 298  | 20.50 | 41.00 |                                           |
| Urea              | mmol/l | 18.2   | 15.5 | 20.9 | 1.35  | 2.70  | Urease kinetic                            |
|                   | mg/dl  | 109    | 93.2 | 125  | 7.90  | 15.80 |                                           |
|                   | mmol/l | 18.2   | 15.5 | 20.9 | 1.35  | 2.70  | BUN                                       |
|                   | mg/dl  | 51.1   | 43.4 | 58.8 | 3.85  | 7.70  |                                           |
| Uric Acid (Urate) | mmol/l | 0.53   | 0.46 | 0.60 | 0.03  | 0.07  | Uricase peroxidase with ascorbate oxidase |
|                   | mg/dl  | 8.94   | 7.78 | 10.1 | 0.58  | 1.16  |                                           |

## BIOSYSTEMS A25

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte           | unit   | Target | low  | high | 1SD   | 2SD   | methods                                 |
|-------------------|--------|--------|------|------|-------|-------|-----------------------------------------|
| Albumin           | g/l    | 31.4   | 26.7 | 36.1 | 2.35  | 4.70  | Bromocresol Green                       |
|                   | g/dl   | 3.14   | 2.67 | 3.61 | 0.24  | 0.47  |                                         |
| ALT (GPT)         | U/l    | 147    | 118  | 176  | 14.50 | 29.00 | Tris buffer without P5P 37°C            |
|                   | U/l    | 109    | 87   | 131  | 11.00 | 22.00 | Tris buffer without P5P 30°C            |
|                   | U/l    | 83     | 66   | 100  | 8.50  | 17.00 | Tris buffer without P5P 25°C            |
| Bilirubin Total   | µmol/l | 82.6   | 65.3 | 99.9 | 8.65  | 17.30 | Diazo with Sulphanilic Acid             |
|                   | mg/dl  | 4.83   | 3.82 | 5.84 | 0.51  | 1.01  |                                         |
| Cholesterol       | mmol/l | 7.20   | 6.26 | 8.14 | 0.47  | 0.94  | Cholesterol Oxidase                     |
|                   | mg/dl  | 278    | 242  | 314  | 18.00 | 36.00 |                                         |
| Glucose           | mmol/l | 15.9   | 13.5 | 18.3 | 1.20  | 2.40  | Glucose oxidase                         |
|                   | mg/dl  | 287    | 243  | 331  | 22.00 | 44.00 |                                         |
| Protein Total     | g/l    | 45.5   | 36.4 | 54.6 | 4.55  | 9.10  | Biuret reaction end point               |
|                   | g/dl   | 4.55   | 3.64 | 5.46 | 0.46  | 0.91  |                                         |
| Triglycerides     | mmol/l | 2.92   | 2.46 | 3.38 | 0.23  | 0.46  | Lipase/GPO-PAP no correction            |
|                   | mg/dl  | 258    | 218  | 298  | 20.00 | 40.00 |                                         |
| Urea              | mmol/l | 18.6   | 15.8 | 21.4 | 1.40  | 2.80  | Urease kinetic                          |
|                   | mg/dl  | 112    | 95.0 | 129  | 8.50  | 17.00 |                                         |
|                   | mmol/l | 18.6   | 15.8 | 21.4 | 1.40  | 2.80  | BUN                                     |
|                   | mg/dl  | 52.2   | 44.4 | 60.0 | 3.90  | 7.80  |                                         |
| Uric Acid (Urate) | mmol/l | 0.56   | 0.48 | 0.63 | 0.04  | 0.07  | Uricase peroxidase no ascorbate oxidase |
|                   | mg/dl  | 9.36   | 8.13 | 10.6 | 0.61  | 1.23  |                                         |

## Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte              | unit   | Target | low  | high | 1SD   | 2SD   | methods                              |
|----------------------|--------|--------|------|------|-------|-------|--------------------------------------|
| Albumin              | g/l    | 30.7   | 26.1 | 35.3 | 2.30  | 4.60  | Bromocresol Green                    |
|                      | g/dl   | 3.07   | 2.61 | 3.53 | 0.23  | 0.46  |                                      |
| Alkaline Phosphatase | U/l    | 330    | 280  | 380  | 25.00 | 50.00 | AMP optimised to IFCC 37°C           |
|                      | U/l    | 257    | 218  | 296  | 19.50 | 39.00 | AMP optimised to IFCC 30°C           |
|                      | U/l    | 211    | 179  | 243  | 16.00 | 32.00 | AMP optimised to IFCC 25°C           |
| ALT (GPT)            | U/l    | 147    | 118  | 176  | 14.50 | 29.00 | Tris buffer without P5P 37°C         |
|                      | U/l    | 109    | 87   | 131  | 11.00 | 22.00 | Tris buffer without P5P 30°C         |
|                      | U/l    | 83     | 66   | 100  | 8.50  | 17.00 | Tris buffer without P5P 25°C         |
| AST (GOT)            | U/l    | 147    | 117  | 177  | 15.00 | 30.00 | Tris buffer without P5P 37°C         |
|                      | U/l    | 99     | 79   | 119  | 10.00 | 20.00 | Tris buffer without P5P 30°C         |
|                      | U/l    | 70     | 56   | 84   | 7.00  | 14.00 | Tris buffer without P5P 25°C         |
| Bilirubin Total      | µmol/l | 80.5   | 63.6 | 97.4 | 8.45  | 16.90 | Dichlorophenyl Diazonium (DPD)       |
|                      | mg/dl  | 4.71   | 3.72 | 5.70 | 0.50  | 0.99  |                                      |
| Calcium              | mmol/l | 3.06   | 2.75 | 3.37 | 0.16  | 0.31  | Arsenazo III                         |
|                      | mg/dl  | 12.3   | 11.0 | 13.6 | 0.65  | 1.30  |                                      |
| Cholesterol          | mmol/l | 7.14   | 6.22 | 8.06 | 0.46  | 0.92  | Cholesterol Oxidase                  |
|                      | mg/dl  | 276    | 240  | 312  | 18.00 | 36.00 |                                      |
| CK Total             | U/l    | 503    | 412  | 594  | 45.50 | 91.00 | CK-NAC (IFCC) 37°C                   |
|                      | U/l    | 315    | 258  | 372  | 28.50 | 57.00 | CK-NAC (IFCC) 30°C                   |
|                      | U/l    | 214    | 175  | 253  | 19.50 | 39.00 | CK-NAC (IFCC) 25°C                   |
| Creatinine           | µmol/l | 343    | 274  | 412  | 34.50 | 69.00 | Alkaline picrate no deproteinization |
|                      | mg/dl  | 3.88   | 3.10 | 4.66 | 0.39  | 0.78  |                                      |

## Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD   | methods                                             |
|---------------------|--------|--------|------|------|-------|-------|-----------------------------------------------------|
| Creatinine          | µmol/l | 384    | 307  | 461  | 38.50 | 77.00 | Creatinine PAP method                               |
|                     | mg/dl  | 4.34   | 3.47 | 5.21 | 0.44  | 0.87  |                                                     |
|                     | µmol/l | 366    | 293  | 439  | 36.50 | 73.00 | Jaffe rate blanked                                  |
|                     | mg/dl  | 4.14   | 3.31 | 4.97 | 0.42  | 0.83  |                                                     |
| gamma-GT            | U/l    | 161    | 137  | 185  | 12.00 | 24.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                     | U/l    | 127    | 108  | 146  | 9.50  | 19.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                     | U/l    | 99     | 85   | 113  | 7.00  | 14.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose             | mmol/l | 15.0   | 12.7 | 17.3 | 1.15  | 2.30  | Glucose oxidase                                     |
|                     | mg/dl  | 270    | 229  | 311  | 20.50 | 41.00 |                                                     |
| HDL - Cholesterol   | mmol/l | 2.40   | 2.04 | 2.76 | 0.18  | 0.36  | Direct HDL Immunoseparation                         |
|                     | mg/dl  | 92.6   | 78.7 | 107  | 6.95  | 13.90 |                                                     |
| Phosphate Inorganic | mmol/l | 2.32   | 1.97 | 2.67 | 0.18  | 0.35  | Phosphomolybdate UV                                 |
|                     | mg/dl  | 7.19   | 6.11 | 8.27 | 0.54  | 1.08  |                                                     |
| Triglycerides       | mmol/l | 2.71   | 2.28 | 3.14 | 0.22  | 0.43  | Lipase/GPO-PAP no correction                        |
|                     | mg/dl  | 240    | 202  | 278  | 19.00 | 38.00 |                                                     |
| Urea                | mmol/l | 19.3   | 16.4 | 22.2 | 1.45  | 2.90  | Urease kinetic                                      |
|                     | mg/dl  | 116    | 98.6 | 133  | 8.70  | 17.40 |                                                     |
|                     | mmol/l | 19.3   | 16.4 | 22.2 | 1.45  | 2.90  | BUN                                                 |
|                     | mg/dl  | 54.2   | 46.1 | 62.3 | 4.05  | 8.10  |                                                     |
| Uric Acid (Urate)   | mmol/l | 0.54   | 0.47 | 0.61 | 0.04  | 0.07  | Uricase peroxidase no ascorbate oxidase             |
|                     | mg/dl  | 9.11   | 7.91 | 10.3 | 0.60  | 1.20  |                                                     |

## COBAS INTEGRA®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte              | unit   | Target | low  | high | 1SD   | 2SD   | methods                           |
|----------------------|--------|--------|------|------|-------|-------|-----------------------------------|
| Albumin              | g/l    | 32.4   | 27.6 | 37.2 | 2.40  | 4.80  | Bromocresol Green                 |
|                      | g/dl   | 3.24   | 2.76 | 3.72 | 0.24  | 0.48  |                                   |
|                      | g/l    | 32.5   | 27.6 | 37.4 | 2.45  | 4.90  | Bromocresol Purple                |
|                      | g/dl   | 3.25   | 2.76 | 3.74 | 0.25  | 0.49  |                                   |
|                      | g/l    | 28.4   | 24.2 | 32.6 | 2.10  | 4.20  | Turbidimetric Assays              |
|                      | g/dl   | 2.84   | 2.42 | 3.26 | 0.21  | 0.42  |                                   |
| Alkaline Phosphatase | U/l    | 294    | 250  | 338  | 22.00 | 44.00 | Roche Integra AMP buffer 37°C     |
|                      | U/l    | 229    | 195  | 263  | 17.00 | 34.00 | Roche Integra AMP buffer 30°C     |
|                      | U/l    | 188    | 160  | 216  | 14.00 | 28.00 | Roche Integra AMP buffer 25°C     |
| ALT (GPT)            | U/l    | 138    | 110  | 166  | 14.00 | 28.00 | Tris buffer without P5P 37°C      |
|                      | U/l    | 102    | 81   | 123  | 10.50 | 21.00 | Tris buffer without P5P 30°C      |
|                      | U/l    | 78     | 62   | 94   | 8.00  | 16.00 | Tris buffer without P5P 25°C      |
| Amylase Pancreatic   | U/l    | 262    | 223  | 301  | 19.50 | 39.00 | Roche EPS Liquid 37°C             |
| Amylase Total        | U/l    | 288    | 245  | 331  | 21.50 | 43.00 | Roche Integra 2-chloro-pNPG7 37°C |
|                      | U/l    | 287    | 244  | 330  | 21.50 | 43.00 | Roche liquid stable pNPG7 37°C    |
| AST (GOT)            | U/l    | 141    | 113  | 169  | 14.00 | 28.00 | Tris buffer without P5P 37°C      |
|                      | U/l    | 95     | 76   | 114  | 9.50  | 19.00 | Tris buffer without P5P 30°C      |
|                      | U/l    | 67     | 54   | 80   | 6.50  | 13.00 | Tris buffer without P5P 25°C      |
| Bicarbonate          | mmol/l | 14.9   | 11.8 | 18.0 | 1.55  | 3.10  | Enzymatic                         |
| Bilirubin Direct     | µmol/l | 29.3   | 23.2 | 35.4 | 3.05  | 6.10  | Dichlorophenyl Diazonium (DPD)    |
|                      | mg/dl  | 1.71   | 1.36 | 2.06 | 0.18  | 0.35  |                                   |

## COBAS INTEGRA®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte          | unit   | Target | low  | high | 1SD   | 2SD   | methods                               |
|------------------|--------|--------|------|------|-------|-------|---------------------------------------|
| Bilirubin Direct | µmol/l | 29.9   | 23.6 | 36.2 | 3.15  | 6.30  | Diazo with Sulphanilic Acid           |
|                  | mg/dl  | 1.75   | 1.38 | 2.12 | 0.19  | 0.37  |                                       |
|                  | µmol/l | 29.5   | 23.3 | 35.7 | 3.10  | 6.20  | Roche JG factored                     |
|                  | mg/dl  | 1.73   | 1.36 | 2.10 | 0.19  | 0.37  |                                       |
| Bilirubin Total  | µmol/l | 79.7   | 62.9 | 96.5 | 8.40  | 16.80 | Diazo with Sulphanilic Acid           |
|                  | mg/dl  | 4.66   | 3.68 | 5.64 | 0.49  | 0.98  |                                       |
|                  | µmol/l | 78.7   | 62.2 | 95.2 | 8.25  | 16.50 | Dichlorophenyl Diazonium (DPD)        |
|                  | mg/dl  | 4.60   | 3.64 | 5.56 | 0.48  | 0.96  |                                       |
|                  | µmol/l | 79.0   | 62.4 | 95.6 | 8.30  | 16.60 | Diazonium ion                         |
| mg/dl            | 4.62   | 3.65   | 5.59 | 0.49 | 0.97  |       |                                       |
| Calcium          | mmol/l | 3.11   | 2.80 | 3.42 | 0.16  | 0.31  | Cresolphthalein complexone            |
|                  | mg/dl  | 12.5   | 11.2 | 13.8 | 0.65  | 1.30  |                                       |
|                  | mmol/l | 3.10   | 2.79 | 3.41 | 0.16  | 0.31  | NM-BAPTA                              |
|                  | mg/dl  | 12.4   | 11.2 | 13.6 | 0.60  | 1.20  |                                       |
| Chloride         | mmol/l | 121    | 111  | 131  | 5.00  | 10.00 | ISE indirect                          |
| Cholesterol      | mmol/l | 7.01   | 6.10 | 7.92 | 0.46  | 0.91  | Cholesterol Oxidase                   |
|                  | mg/dl  | 271    | 235  | 307  | 18.00 | 36.00 |                                       |
| CK Total         | U/l    | 484    | 397  | 571  | 43.50 | 87.00 | CK-NAC (IFCC) 37°C                    |
|                  | U/l    | 303    | 249  | 357  | 27.00 | 54.00 | CK-NAC (IFCC) 30°C                    |
|                  | U/l    | 206    | 169  | 243  | 18.50 | 37.00 | CK-NAC (IFCC) 25°C                    |
| Creatinine       | µmol/l | 380    | 304  | 456  | 38.00 | 76.00 | Alkaline picrate no deproteinization  |
|                  | mg/dl  | 4.29   | 3.44 | 5.14 | 0.43  | 0.85  |                                       |
|                  | µmol/l | 380    | 304  | 456  | 38.00 | 76.00 | Roche Creatinine Plus                 |
|                  | mg/dl  | 4.29   | 3.44 | 5.14 | 0.43  | 0.85  |                                       |
|                  | µmol/l | 375    | 300  | 450  | 37.50 | 75.00 | Jaffe rate blanked comp. (-26 µmol/l) |
|                  | mg/dl  | 4.24   | 3.39 | 5.09 | 0.43  | 0.85  |                                       |



## COBAS INTEGRA®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte           | unit   | Target | low  | high  | 1SD   | 2SD    | methods                                             |
|-------------------|--------|--------|------|-------|-------|--------|-----------------------------------------------------|
| Creatinine        | µmol/l | 376    | 301  | 451   | 37.50 | 75.00  | Jaffe rate blanked compensated (-18 µmol/l)         |
|                   | mg/dl  | 4.25   | 3.40 | 5.10  | 0.43  | 0.85   |                                                     |
| gamma-GT          | U/l    | 158    | 135  | 181   | 11.50 | 23.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C       |
|                   | U/l    | 125    | 106  | 144   | 9.50  | 19.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C       |
|                   | U/l    | 97     | 83   | 111   | 7.00  | 14.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C       |
|                   | U/l    | 173    | 147  | 199   | 13.00 | 26.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                   | U/l    | 136    | 116  | 156   | 10.00 | 20.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                   | U/l    | 107    | 91   | 123   | 8.00  | 16.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose           | mmol/l | 15.7   | 13.4 | 18.0  | 1.15  | 2.30   | Hexokinase                                          |
|                   | mg/dl  | 283    | 241  | 325   | 21.00 | 42.00  |                                                     |
| HDL - Cholesterol | mmol/l | 3.48   | 2.96 | 4.00  | 0.26  | 0.52   | Direct HDL PEGME                                    |
|                   | mg/dl  | 134    | 114  | 154   | 10.00 | 20.00  |                                                     |
|                   | mmol/l | 3.59   | 3.05 | 4.13  | 0.27  | 0.54   | Direct HDL Roche 3rd generation                     |
|                   | mg/dl  | 139    | 118  | 160   | 10.50 | 21.00  |                                                     |
|                   | mmol/l | 3.58   | 3.05 | 4.11  | 0.27  | 0.53   |                                                     |
| mg/dl             | 138    | 118    | 158  | 10.00 | 20.00 |        |                                                     |
| Iron              | µmol/l | 39.8   | 32.7 | 46.9  | 3.55  | 7.10   | Colorimetric with ppt.                              |
|                   | µg/dl  | 222    | 183  | 261   | 19.50 | 39.00  |                                                     |
|                   | µmol/l | 39.5   | 32.4 | 46.6  | 3.55  | 7.10   | Colorimetric without ppt.                           |
|                   | µg/dl  | 221    | 181  | 261   | 20.00 | 40.00  |                                                     |
| Lactate           | mmol/l | 5.51   | 4.52 | 6.50  | 0.50  | 0.99   | Colorimetric Lactate Oxidase                        |
|                   | mg/dl  | 49.6   | 40.7 | 58.5  | 4.45  | 8.90   |                                                     |
| LD (LDH)          | U/l    | 679    | 577  | 781   | 51.00 | 102.00 | P->L German methods 37°C                            |
|                   | U/l    | 490    | 417  | 563   | 36.50 | 73.00  | P->L German methods 30°C                            |
|                   | U/l    | 344    | 293  | 395   | 25.50 | 51.00  | P->L German methods 25°C                            |

## COBAS INTEGRA®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD   | methods                       |
|---------------------|--------|--------|------|------|-------|-------|-------------------------------|
| LD (LDH)            | U/l    | 379    | 323  | 435  | 28.00 | 56.00 | L->P IFCC 37°C                |
|                     | U/l    | 274    | 233  | 315  | 20.50 | 41.00 | L->P IFCC 30°C                |
|                     | U/l    | 192    | 164  | 220  | 14.00 | 28.00 | L->P IFCC 25°C                |
| Lipase              | U/l    | 56     | 45   | 67   | 5.50  | 11.00 | Roche Colorimetric 37°C       |
| Lithium             | mmol/l | 2.09   | 1.84 | 2.34 | 0.13  | 0.25  | Ion selective electrode       |
|                     | mg/dl  | 1.45   | 1.28 | 1.62 | 0.09  | 0.17  |                               |
| Magnesium           | mmol/l | 1.80   | 1.58 | 2.02 | 0.11  | 0.22  | Chlorphosphonazo III          |
|                     | mg/dl  | 4.37   | 3.84 | 4.90 | 0.27  | 0.53  |                               |
| Phosphate Inorganic | mmol/l | 2.29   | 1.95 | 2.63 | 0.17  | 0.34  | Phosphomolybdate enzymatic    |
|                     | mg/dl  | 7.10   | 6.05 | 8.15 | 0.53  | 1.05  |                               |
|                     | mmol/l | 2.30   | 1.95 | 2.65 | 0.18  | 0.35  | Phosphomolybdate UV           |
|                     | mg/dl  | 7.13   | 6.05 | 8.21 | 0.54  | 1.08  |                               |
| Potassium           | mmol/l | 6.38   | 5.87 | 6.89 | 0.26  | 0.51  | ISE method - indirect         |
| Protein Total       | g/l    | 43.4   | 34.7 | 52.1 | 4.35  | 8.70  | Biuret reaction end point     |
|                     | g/dl   | 4.34   | 3.47 | 5.21 | 0.44  | 0.87  |                               |
|                     | g/l    | 45.0   | 36.0 | 54.0 | 4.50  | 9.00  | Biuret reaction kinetic       |
|                     | g/dl   | 4.50   | 3.60 | 5.40 | 0.45  | 0.90  |                               |
| Sodium              | mmol/l | 159    | 151  | 167  | 4.00  | 8.00  | ISE method - indirect         |
| TIBC                | µmol/l | 41.2   | 32.6 | 49.8 | 4.30  | 8.60  | FE+UIBC(saturation with iron) |
|                     | µg/dl  | 230    | 182  | 278  | 24.00 | 48.00 |                               |
| Triglycerides       | mmol/l | 2.96   | 2.49 | 3.43 | 0.24  | 0.47  | Lipase/GPO-PAP no correction  |
|                     | mg/dl  | 262    | 220  | 304  | 21.00 | 42.00 |                               |
| Urea                | mmol/l | 19.2   | 16.3 | 22.1 | 1.45  | 2.90  | Urease kinetic                |
|                     | mg/dl  | 115    | 98.0 | 132  | 8.50  | 17.00 |                               |

**COBAS INTEGRA®****ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)**

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte           | unit   | Target | low  | high | 1SD  | 2SD  | methods                                           |
|-------------------|--------|--------|------|------|------|------|---------------------------------------------------|
| Urea              | mmol/l | 19.2   | 16.3 | 22.1 | 1.45 | 2.90 | BUN                                               |
|                   | mg/dl  | 53.9   | 45.8 | 62.0 | 4.05 | 8.10 |                                                   |
| Uric Acid (Urate) | mmol/l | 0.56   | 0.49 | 0.63 | 0.04 | 0.07 | Uricase peroxidase with ascorbate oxidase         |
|                   | mg/dl  | 9.42   | 8.20 | 10.6 | 0.61 | 1.22 |                                                   |
|                   | mmol/l | 0.56   | 0.49 | 0.63 | 0.04 | 0.07 | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 9.41   | 8.18 | 10.6 | 0.62 | 1.23 |                                                   |
|                   | mmol/l | 0.56   | 0.49 | 0.63 | 0.04 | 0.07 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 9.42   | 8.20 | 10.6 | 0.61 | 1.22 |                                                   |

## Elitech/Vitalab Selectra Series

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD   | methods                              |
|---------------------|--------|--------|------|------|-------|-------|--------------------------------------|
| Albumin             | g/l    | 34.2   | 29.1 | 39.3 | 2.55  | 5.10  | Bromocresol Green                    |
|                     | g/dl   | 3.42   | 2.91 | 3.93 | 0.26  | 0.51  |                                      |
| ALT (GPT)           | U/l    | 150    | 120  | 180  | 15.00 | 30.00 | Tris buffer without P5P 37°C         |
| AST (GOT)           | U/l    | 144    | 115  | 173  | 14.50 | 29.00 | Tris buffer without P5P 37°C         |
| Bilirubin Total     | µmol/l | 86.8   | 68.6 | 105  | 9.10  | 18.20 | Diazo with Sulphanilic Acid          |
|                     | mg/dl  | 5.08   | 4.01 | 6.15 | 0.54  | 1.07  |                                      |
| Calcium             | mmol/l | 3.05   | 2.74 | 3.36 | 0.16  | 0.31  | Arsenazo III                         |
|                     | mg/dl  | 12.2   | 11.0 | 13.4 | 0.60  | 1.20  |                                      |
| Cholesterol         | mmol/l | 7.22   | 6.28 | 8.16 | 0.47  | 0.94  | Cholesterol Oxidase                  |
|                     | mg/dl  | 279    | 242  | 316  | 18.50 | 37.00 |                                      |
| Creatinine          | µmol/l | 358    | 286  | 430  | 36.00 | 72.00 | Alkaline picrate no deproteinization |
|                     | mg/dl  | 4.05   | 3.23 | 4.87 | 0.41  | 0.82  |                                      |
| Glucose             | mmol/l | 15.8   | 13.4 | 18.2 | 1.20  | 2.40  | Glucose oxidase                      |
|                     | mg/dl  | 285    | 241  | 329  | 22.00 | 44.00 |                                      |
| LD (LDH)            | U/l    | 374    | 318  | 430  | 28.00 | 56.00 | L->P IFCC 37°C                       |
| Phosphate Inorganic | mmol/l | 2.10   | 1.78 | 2.42 | 0.16  | 0.32  | Phosphomolybdate UV                  |
|                     | mg/dl  | 6.51   | 5.52 | 7.50 | 0.50  | 0.99  |                                      |
| Protein Total       | g/l    | 47.1   | 37.7 | 56.5 | 4.70  | 9.40  | Biuret reaction end point            |
|                     | g/dl   | 4.71   | 3.77 | 5.65 | 0.47  | 0.94  |                                      |
| Triglycerides       | mmol/l | 2.87   | 2.41 | 3.33 | 0.23  | 0.46  | Lipase/GPO-PAP no correction         |
|                     | mg/dl  | 254    | 213  | 295  | 20.50 | 41.00 |                                      |

**Elitech/Vitalab Selectra Series**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte           | unit   | Target | low  | high | 1SD  | 2SD   | methods                                 |
|-------------------|--------|--------|------|------|------|-------|-----------------------------------------|
| Urea              | mmol/l | 19.0   | 16.1 | 21.9 | 1.45 | 2.90  | Urease kinetic                          |
|                   | mg/dl  | 114    | 96.8 | 131  | 8.60 | 17.20 |                                         |
|                   | mmol/l | 19.0   | 16.2 | 21.8 | 1.40 | 2.80  | BUN                                     |
|                   | mg/dl  | 53.3   | 45.3 | 61.3 | 4.00 | 8.00  |                                         |
| Uric Acid (Urate) | mmol/l | 0.55   | 0.48 | 0.62 | 0.04 | 0.07  | Uricase peroxidase no ascorbate oxidase |
|                   | mg/dl  | 9.27   | 8.08 | 10.5 | 0.60 | 1.19  |                                         |

## HITACHI SERIES®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte                  | unit   | Target | low  | high | 1SD   | 2SD   | methods                                     |
|--------------------------|--------|--------|------|------|-------|-------|---------------------------------------------|
| Acid Phosphatase (Total) | U/l    | 31.5   | 21.1 | 41.9 | 5.20  | 10.40 | 1-Naphthyl Phosphate substrate Kinetic 37°C |
| Albumin                  | g/l    | 32.5   | 27.6 | 37.4 | 2.45  | 4.90  | Bromocresol Green                           |
|                          | g/dl   | 3.25   | 2.76 | 3.74 | 0.25  | 0.49  |                                             |
| Alkaline Phosphatase     | U/l    | 286    | 243  | 329  | 21.50 | 43.00 | Roche Integra AMP buffer 37°C               |
|                          | U/l    | 223    | 189  | 257  | 17.00 | 34.00 | Roche Integra AMP buffer 30°C               |
|                          | U/l    | 183    | 155  | 211  | 14.00 | 28.00 | Roche Integra AMP buffer 25°C               |
|                          | U/l    | 374    | 318  | 430  | 28.00 | 56.00 | Radox AMP 37°C                              |
|                          | U/l    | 291    | 248  | 334  | 21.50 | 43.00 | Radox AMP 30°C                              |
|                          | U/l    | 239    | 203  | 275  | 18.00 | 36.00 | Radox AMP 25°C                              |
| ALT (GPT)                | U/l    | 139    | 111  | 167  | 14.00 | 28.00 | Tris buffer without P5P 37°C                |
|                          | U/l    | 103    | 82   | 124  | 10.50 | 21.00 | Tris buffer without P5P 30°C                |
|                          | U/l    | 78     | 62   | 94   | 8.00  | 16.00 | Tris buffer without P5P 25°C                |
| Amylase Pancreatic       | U/l    | 301    | 256  | 346  | 22.50 | 45.00 | Radox Liquid Ethylidene pNPG7 37°C          |
| Amylase Total            | U/l    | 278    | 236  | 320  | 21.00 | 42.00 | Roche liquid stable pNPG7 37°C              |
|                          | U/l    | 311    | 264  | 358  | 23.50 | 47.00 | Radox Liquid Ethylidene pNPG7 37°C          |
| AST (GOT)                | U/l    | 141    | 113  | 169  | 14.00 | 28.00 | Tris buffer without P5P 37°C                |
|                          | U/l    | 95     | 76   | 114  | 9.50  | 19.00 | Tris buffer without P5P 30°C                |
|                          | U/l    | 67     | 54   | 80   | 6.50  | 13.00 | Tris buffer without P5P 25°C                |
| Bile Acids               | µmol/l | 46.7   | 37.4 | 56.0 | 4.65  | 9.30  | 5th Generation Colorimetric                 |
| Calcium                  | mmol/l | 3.15   | 2.84 | 3.46 | 0.16  | 0.31  | Cresolphthalein complexone                  |
|                          | mg/dl  | 12.6   | 11.4 | 13.8 | 0.60  | 1.20  |                                             |

## HITACHI SERIES®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD   | methods                                              |
|---------------------|--------|--------|------|------|-------|-------|------------------------------------------------------|
| Calcium             | mmol/l | 3.12   | 2.81 | 3.43 | 0.16  | 0.31  | NM-BAPTA                                             |
|                     | mg/dl  | 12.5   | 11.3 | 13.7 | 0.60  | 1.20  |                                                      |
| Chloride            | mmol/l | 118    | 109  | 127  | 4.50  | 9.00  | ISE indirect                                         |
| Cholesterol         | mmol/l | 7.10   | 6.18 | 8.02 | 0.46  | 0.92  | Cholesterol Oxidase                                  |
|                     | mg/dl  | 274    | 239  | 309  | 17.50 | 35.00 |                                                      |
| gamma-GT            | U/l    | 176    | 149  | 203  | 13.50 | 27.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C  |
|                     | U/l    | 139    | 117  | 161  | 11.00 | 22.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C  |
|                     | U/l    | 109    | 92   | 126  | 8.50  | 17.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C  |
|                     | U/l    | 186    | 158  | 214  | 14.00 | 28.00 | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
|                     | U/l    | 147    | 125  | 169  | 11.00 | 22.00 | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
|                     | U/l    | 115    | 97   | 133  | 9.00  | 18.00 | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| Glucose             | mmol/l | 15.7   | 13.3 | 18.1 | 1.20  | 2.40  | Hexokinase                                           |
|                     | mg/dl  | 283    | 240  | 326  | 21.50 | 43.00 |                                                      |
| Magnesium           | mmol/l | 1.78   | 1.57 | 1.99 | 0.11  | 0.21  | Xylidyl Blue                                         |
|                     | mg/dl  | 4.33   | 3.82 | 4.84 | 0.26  | 0.51  |                                                      |
| Phosphate Inorganic | mmol/l | 2.22   | 1.89 | 2.55 | 0.17  | 0.33  | Phosphomolybdate UV                                  |
|                     | mg/dl  | 6.88   | 5.86 | 7.90 | 0.51  | 1.02  |                                                      |
| Potassium           | mmol/l | 6.42   | 5.90 | 6.94 | 0.26  | 0.52  | ISE method - indirect                                |
| Protein Total       | g/l    | 46.1   | 36.9 | 55.3 | 4.60  | 9.20  | Biuret reaction end point                            |
|                     | g/dl   | 4.61   | 3.69 | 5.53 | 0.46  | 0.92  |                                                      |
| Sodium              | mmol/l | 160    | 152  | 168  | 4.00  | 8.00  | ISE method - indirect                                |
| Triglycerides       | mmol/l | 2.99   | 2.51 | 3.47 | 0.24  | 0.48  | Lipase/GPO-PAP no correction                         |
|                     | mg/dl  | 265    | 222  | 308  | 21.50 | 43.00 |                                                      |
| Urea                | mmol/l | 19.3   | 16.4 | 22.2 | 1.45  | 2.90  | Urease kinetic                                       |
|                     | mg/dl  | 116    | 98.6 | 133  | 8.70  | 17.40 |                                                      |

**HITACHI SERIES®**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte | unit   | Target | low  | high | 1SD  | 2SD  | methods |
|---------|--------|--------|------|------|------|------|---------|
| Urea    | mmol/l | 19.3   | 16.4 | 22.2 | 1.45 | 2.90 | BUN     |
|         | mg/dl  | 54.2   | 46.1 | 62.3 | 4.05 | 8.10 |         |



## Konelab 20/30/60®/Thermo Scientific Indiko Plus

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte              | unit   | Target | low  | high | 1SD   | 2SD   | methods                        |
|----------------------|--------|--------|------|------|-------|-------|--------------------------------|
| Albumin              | g/l    | 30.5   | 25.9 | 35.1 | 2.30  | 4.60  | Bromocresol Green              |
|                      | g/dl   | 3.05   | 2.59 | 3.51 | 0.23  | 0.46  |                                |
| Alkaline Phosphatase | U/l    | 518    | 440  | 596  | 39.00 | 78.00 | Diethanolamine buffer DEA 37°C |
|                      | U/l    | 404    | 343  | 465  | 30.50 | 61.00 | Diethanolamine buffer DEA 30°C |
|                      | U/l    | 331    | 281  | 381  | 25.00 | 50.00 | Diethanolamine buffer DEA 25°C |
|                      | U/l    | 325    | 276  | 374  | 24.50 | 49.00 | AMP optimised to IFCC 37°C     |
|                      | U/l    | 253    | 215  | 291  | 19.00 | 38.00 | AMP optimised to IFCC 30°C     |
|                      | U/l    | 208    | 176  | 240  | 16.00 | 32.00 | AMP optimised to IFCC 25°C     |
| ALT (GPT)            | U/l    | 157    | 126  | 188  | 15.50 | 31.00 | Tris buffer without P5P 37°C   |
|                      | U/l    | 116    | 93   | 139  | 11.50 | 23.00 | Tris buffer without P5P 30°C   |
|                      | U/l    | 88     | 71   | 105  | 8.50  | 17.00 | Tris buffer without P5P 25°C   |
| AST (GOT)            | U/l    | 161    | 129  | 193  | 16.00 | 32.00 | Tris buffer without P5P 37°C   |
|                      | U/l    | 109    | 87   | 131  | 11.00 | 22.00 | Tris buffer without P5P 30°C   |
|                      | U/l    | 77     | 61   | 93   | 8.00  | 16.00 | Tris buffer without P5P 25°C   |
| Bile Acids           | µmol/l | 47.6   | 38.1 | 57.1 | 4.75  | 9.50  | Enzymatic Colorimetric         |
| Bilirubin Direct     | µmol/l | 25.6   | 20.2 | 31.0 | 2.70  | 5.40  | Diazo with Sulphanilic Acid    |
|                      | mg/dl  | 1.50   | 1.18 | 1.82 | 0.16  | 0.32  |                                |
| Bilirubin Total      | µmol/l | 87.1   | 68.8 | 105  | 9.15  | 18.30 | Nitrobenzenediazonium salt     |
|                      | mg/dl  | 5.10   | 4.02 | 6.18 | 0.54  | 1.08  |                                |
| Calcium              | mmol/l | 3.24   | 2.92 | 3.56 | 0.16  | 0.32  | Arsenazo III                   |
|                      | mg/dl  | 13.0   | 11.7 | 14.3 | 0.65  | 1.30  |                                |



| Konelab 20/30/60®/Thermo Scientific Indiko Plus |        |                   |      | ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3) |       |        |                                                     |
|-------------------------------------------------|--------|-------------------|------|------------------------------------------------|-------|--------|-----------------------------------------------------|
| Lot. No. 1079UE Cat. No. HE1532 / HS2611        |        |                   |      |                                                |       |        |                                                     |
| Size 20 x 5ml / 5 x 5ml                         |        | Expiry 2023-02-28 |      | Range                                          |       |        |                                                     |
| Analyte                                         | unit   | Target            | low  | high                                           | 1SD   | 2SD    | methods                                             |
| Chloride                                        | mmol/l | 120               | 110  | 130                                            | 5.00  | 10.00  | ISE direct                                          |
| Cholesterol                                     | mmol/l | 7.15              | 6.22 | 8.08                                           | 0.47  | 0.93   | Cholesterol Oxidase                                 |
|                                                 | mg/dl  | 276               | 240  | 312                                            | 18.00 | 36.00  |                                                     |
| CK Total                                        | U/l    | 519               | 425  | 613                                            | 47.00 | 94.00  | CK-NAC (IFCC) 37°C                                  |
|                                                 | U/l    | 325               | 266  | 384                                            | 29.50 | 59.00  | CK-NAC (IFCC) 30°C                                  |
|                                                 | U/l    | 221               | 181  | 261                                            | 20.00 | 40.00  | CK-NAC (IFCC) 25°C                                  |
| Creatinine                                      | µmol/l | 382               | 306  | 458                                            | 38.00 | 76.00  | Alkaline picrate no deproteinization                |
|                                                 | mg/dl  | 4.32              | 3.46 | 5.18                                           | 0.43  | 0.86   |                                                     |
|                                                 | µmol/l | 394               | 315  | 473                                            | 39.50 | 79.00  | Creatinine PAP method                               |
|                                                 | mg/dl  | 4.45              | 3.56 | 5.34                                           | 0.45  | 0.89   |                                                     |
| gamma-GT                                        | U/l    | 170               | 145  | 195                                            | 12.50 | 25.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                                                 | U/l    | 134               | 114  | 154                                            | 10.00 | 20.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                                                 | U/l    | 105               | 89   | 121                                            | 8.00  | 16.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose                                         | mmol/l | 15.5              | 13.2 | 17.8                                           | 1.15  | 2.30   | Hexokinase                                          |
|                                                 | mg/dl  | 279               | 238  | 320                                            | 20.50 | 41.00  |                                                     |
|                                                 | mmol/l | 15.6              | 13.3 | 17.9                                           | 1.15  | 2.30   | Glucose oxidase                                     |
|                                                 | mg/dl  | 281               | 240  | 322                                            | 20.50 | 41.00  |                                                     |
| HDL - Cholesterol                               | mmol/l | 2.89              | 2.46 | 3.32                                           | 0.22  | 0.43   | Direct HDL PEGME                                    |
|                                                 | mg/dl  | 112               | 95.0 | 129                                            | 8.50  | 17.00  |                                                     |
|                                                 | mmol/l | 2.71              | 2.30 | 3.12                                           | 0.21  | 0.41   | Direct Clearance Method                             |
|                                                 | mg/dl  | 105               | 88.8 | 121                                            | 8.10  | 16.20  |                                                     |
| Iron                                            | µmol/l | 38.0              | 31.1 | 44.9                                           | 3.45  | 6.90   | Colorimetric without ppt.                           |
|                                                 | µg/dl  | 212               | 174  | 250                                            | 19.00 | 38.00  |                                                     |
| LD (LDH)                                        | U/l    | 738               | 627  | 849                                            | 55.50 | 111.00 | P->L SFBC 37°C                                      |
|                                                 | U/l    | 533               | 453  | 613                                            | 40.00 | 80.00  | P->L SFBC 30°C                                      |
|                                                 | U/l    | 374               | 318  | 430                                            | 28.00 | 56.00  | P->L SFBC 25°C                                      |

## Konelab 20/30/60®/Thermo Scientific Indiko Plus

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD   | methods                                           |
|---------------------|--------|--------|------|------|-------|-------|---------------------------------------------------|
| Magnesium           | mmol/l | 1.72   | 1.51 | 1.93 | 0.11  | 0.21  | Xylidyl Blue                                      |
|                     | mg/dl  | 4.18   | 3.67 | 4.69 | 0.26  | 0.51  |                                                   |
| Phosphate Inorganic | mmol/l | 2.26   | 1.92 | 2.60 | 0.17  | 0.34  | Phosphomolybdate UV                               |
|                     | mg/dl  | 7.01   | 5.95 | 8.07 | 0.53  | 1.06  |                                                   |
| Potassium           | mmol/l | 6.25   | 5.75 | 6.75 | 0.25  | 0.50  | ISE method - direct                               |
| Protein Total       | g/l    | 46.3   | 37.1 | 55.5 | 4.60  | 9.20  | Biuret reaction end point                         |
|                     | g/dl   | 4.63   | 3.71 | 5.55 | 0.46  | 0.92  |                                                   |
| Sodium              | mmol/l | 156    | 149  | 163  | 3.50  | 7.00  | ISE method - direct                               |
| Triglycerides       | mmol/l | 3.00   | 2.52 | 3.48 | 0.24  | 0.48  | Lipase/GPO-PAP no correction                      |
|                     | mg/dl  | 266    | 223  | 309  | 21.50 | 43.00 |                                                   |
| Urea                | mmol/l | 18.6   | 15.8 | 21.4 | 1.40  | 2.80  | Urease kinetic                                    |
|                     | mg/dl  | 112    | 95.0 | 129  | 8.50  | 17.00 |                                                   |
|                     | mmol/l | 18.6   | 15.8 | 21.4 | 1.40  | 2.80  | BUN                                               |
|                     | mg/dl  | 52.2   | 44.4 | 60.0 | 3.90  | 7.80  |                                                   |
| Uric Acid (Urate)   | mmol/l | 0.57   | 0.49 | 0.64 | 0.04  | 0.07  | Uricase peroxidase with ascorbate oxidase         |
|                     | mg/dl  | 9.49   | 8.27 | 10.7 | 0.61  | 1.22  |                                                   |
|                     | mmol/l | 0.56   | 0.48 | 0.63 | 0.04  | 0.07  | Uricase peroxidase no ascorbate oxidase           |
|                     | mg/dl  | 9.34   | 8.11 | 10.6 | 0.62  | 1.23  |                                                   |
|                     | mmol/l | 0.57   | 0.50 | 0.64 | 0.04  | 0.07  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                     | mg/dl  | 9.58   | 8.33 | 10.8 | 0.63  | 1.25  |                                                   |

## MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte                  | unit | Target | low  | high  | 1SD   | 2SD                    | methods                                     |
|--------------------------|------|--------|------|-------|-------|------------------------|---------------------------------------------|
| alpha-HBDH               | U/l  | 410    | 324  | 496   | 43.00 | 86.00                  | Oxobutyrate < 10 mmol/l 37°C                |
|                          | U/l  | 310    | 245  | 375   | 32.50 | 65.00                  | Oxobutyrate < 10 mmol/l 30°C                |
|                          | U/l  | 232    | 183  | 281   | 24.50 | 49.00                  | Oxobutyrate < 10 mmol/l 25°C                |
| Acid Phosphatase (Total) | U/l  | 31.5   | 21.1 | 41.9  | 5.20  | 10.40                  | 1-Naphthyl Phosphate substrate Kinetic 37°C |
| Albumin                  | g/l  | 31.5   | 26.7 | 36.3  | 2.40  | 4.80                   | Bromocresol Green                           |
|                          | g/dl | 3.15   | 2.67 | 3.63  | 0.24  | 0.48                   |                                             |
|                          | g/l  | 30.3   | 25.8 | 34.8  | 2.25  | 4.50                   | Bromocresol Purple                          |
|                          | g/dl | 3.03   | 2.58 | 3.48  | 0.23  | 0.45                   |                                             |
|                          | g/l  | 29.3   | 24.9 | 33.7  | 2.20  | 4.40                   | Ortho Vitros Microslide Systems             |
|                          | g/dl | 2.93   | 2.49 | 3.37  | 0.22  | 0.44                   |                                             |
|                          | g/l  | 28.6   | 24.3 | 32.9  | 2.15  | 4.30                   | Turbidimetric Assays                        |
| g/dl                     | 2.86 | 2.43   | 3.29 | 0.22  | 0.43  |                        |                                             |
| Alkaline Phosphatase     | U/l  | 259    | 220  | 298   | 19.50 | 39.00                  | Ortho Vitros Microslide Systems 37°C        |
|                          | U/l  | 506    | 430  | 582   | 38.00 | 76.00                  | Diethanolamine buffer DEA 37°C              |
|                          | U/l  | 394    | 335  | 453   | 29.50 | 59.00                  | Diethanolamine buffer DEA 30°C              |
|                          | U/l  | 323    | 275  | 371   | 24.00 | 48.00                  | Diethanolamine buffer DEA 25°C              |
|                          | U/l  | 354    | 301  | 407   | 26.50 | 53.00                  | AMP optimised to IFCC 37°C                  |
|                          | U/l  | 276    | 234  | 318   | 21.00 | 42.00                  | AMP optimised to IFCC 30°C                  |
|                          | U/l  | 226    | 192  | 260   | 17.00 | 34.00                  | AMP optimised to IFCC 25°C                  |
|                          | U/l  | 341    | 290  | 392   | 25.50 | 51.00                  | AMP non-optimised 37°C                      |
|                          | U/l  | 266    | 226  | 306   | 20.00 | 40.00                  | AMP non-optimised 30°C                      |
| U/l                      | 218  | 185    | 251  | 16.50 | 33.00 | AMP non-optimised 25°C |                                             |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

| Analyte            | unit | Target | Range |      | 1SD   | 2SD   | methods                              |
|--------------------|------|--------|-------|------|-------|-------|--------------------------------------|
|                    |      |        | low   | high |       |       |                                      |
| ALT (GPT)          | U/l  | 156    | 125   | 187  | 15.50 | 31.00 | Ortho Vitros Microslide Systems 37°C |
|                    | U/l  | 150    | 120   | 180  | 15.00 | 30.00 | Tris buffer with P5P 37°C            |
|                    | U/l  | 111    | 89    | 133  | 11.00 | 22.00 | Tris buffer with P5P 30°C            |
|                    | U/l  | 84     | 68    | 100  | 8.00  | 16.00 | Tris buffer with P5P 25°C            |
|                    | U/l  | 141    | 113   | 169  | 14.00 | 28.00 | Tris buffer without P5P 37°C         |
|                    | U/l  | 104    | 84    | 124  | 10.00 | 20.00 | Tris buffer without P5P 30°C         |
|                    | U/l  | 79     | 64    | 94   | 7.50  | 15.00 | Tris buffer without P5P 25°C         |
|                    | U/l  | 132    | 105   | 159  | 13.50 | 27.00 | Tris buffer SCE 37°C                 |
|                    | U/l  | 98     | 78    | 118  | 10.00 | 20.00 | Tris buffer SCE 30°C                 |
|                    | U/l  | 74     | 59    | 89   | 7.50  | 15.00 | Tris buffer SCE 25°C                 |
| Amylase Pancreatic | U/l  | 258    | 219   | 297  | 19.50 | 39.00 | Immunoinhibition EPS substrate 37°C  |
|                    | U/l  | 255    | 217   | 293  | 19.00 | 38.00 | Roche EPS Liquid 37°C                |
|                    | U/l  | 301    | 256   | 346  | 22.50 | 45.00 | Randox Liquid Ethylidene pNPG7 37°C  |
| Amylase Total      | U/l  | 305    | 260   | 350  | 22.50 | 45.00 | pNP Maltotriose substrates 37°C      |
|                    | U/l  | 294    | 250   | 338  | 22.00 | 44.00 | Siemens - blocked pNPG7 37°C         |
|                    | U/l  | 238    | 202   | 274  | 18.00 | 36.00 | Randox Lyo. Ethylidene pNPG7 37°C    |
|                    | U/l  | 311    | 264   | 358  | 23.50 | 47.00 | Randox Liquid Ethylidene pNPG7 37°C  |
|                    | U/l  | 275    | 234   | 316  | 20.50 | 41.00 | BM/Roche Colorimetric pNPG7 37°C     |
|                    | U/l  | 267    | 227   | 307  | 20.00 | 40.00 | Saccharogenic 37°C                   |
|                    | U/l  | 284    | 241   | 327  | 21.50 | 43.00 | Roche Integra 2-chloro-pNPG7 37°C    |
|                    | U/l  | 187    | 159   | 215  | 14.00 | 28.00 | Ortho Vitros Microslide Systems 37°C |
|                    | U/l  | 277    | 236   | 318  | 20.50 | 41.00 | Roche liquid stable pNPG7 37°C       |
|                    | U/l  | 348    | 296   | 400  | 26.00 | 52.00 | Siemens 2-chloro-pNPG3 37°C          |
|                    | U/l  | 295    | 251   | 339  | 22.00 | 44.00 | Beckman Coulter - blocked pNPG7 37°C |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte            | unit   | Target | low  | high | 1SD   | 2SD   | methods                                    |
|--------------------|--------|--------|------|------|-------|-------|--------------------------------------------|
| Amylase Total      | U/l    | 301    | 256  | 346  | 22.50 | 45.00 | Beckman Synchron AMY7 37°C                 |
|                    | U/l    | 326    | 277  | 375  | 24.50 | 49.00 | Abbott Architect Non-IFCC Cal. 37°C        |
|                    | U/l    | 362    | 308  | 416  | 27.00 | 54.00 | Abbott Architect IFCC Cal. 37°C            |
|                    | U/l    | 291    | 247  | 335  | 22.00 | 44.00 | Beckman CNPG3 (Extinction Coeff) 37°C      |
| Apolipoprotein A-1 | g/l    | 1.16   | 0.95 | 1.37 | 0.10  | 0.21  | Immunoturbidimetric                        |
|                    | mg/dl  | 116    | 95.1 | 137  | 10.45 | 20.90 |                                            |
| Apolipoprotein B   | g/l    | 0.54   | 0.44 | 0.63 | 0.05  | 0.10  | Immunoturbidimetric                        |
|                    | mg/dl  | 53.7   | 44.0 | 63.4 | 4.85  | 9.70  |                                            |
| AST (GOT)          | U/l    | 188    | 151  | 225  | 18.50 | 37.00 | Ortho Vitros Microslide visible slide 37°C |
|                    | U/l    | 189    | 151  | 227  | 19.00 | 38.00 | Tris buffer with P5P 37°C                  |
|                    | U/l    | 128    | 102  | 154  | 13.00 | 26.00 | Tris buffer with P5P 30°C                  |
|                    | U/l    | 90     | 72   | 108  | 9.00  | 18.00 | Tris buffer with P5P 25°C                  |
|                    | U/l    | 142    | 114  | 170  | 14.00 | 28.00 | Tris buffer without P5P 37°C               |
|                    | U/l    | 96     | 77   | 115  | 9.50  | 19.00 | Tris buffer without P5P 30°C               |
|                    | U/l    | 68     | 54   | 82   | 7.00  | 14.00 | Tris buffer without P5P 25°C               |
|                    | U/l    | 133    | 107  | 159  | 13.00 | 26.00 | Tris buffer SCE 37°C                       |
|                    | U/l    | 90     | 72   | 108  | 9.00  | 18.00 | Tris buffer SCE 30°C                       |
| Bicarbonate        | mmol/l | 14.9   | 11.8 | 18.0 | 1.55  | 3.10  | Colorimetric                               |
|                    | mmol/l | 17.1   | 13.6 | 20.6 | 1.75  | 3.50  | Ortho Vitros Microslide Systems            |
|                    | mmol/l | 14.2   | 11.3 | 17.1 | 1.45  | 2.90  | Differential rate pH change                |
|                    | mmol/l | 15.0   | 11.9 | 18.1 | 1.55  | 3.10  | Enzymatic                                  |
|                    | mmol/l | 13.9   | 11.0 | 16.8 | 1.45  | 2.90  | Ion selective electrode                    |
| Bile Acids         | µmol/l | 49.6   | 39.7 | 59.5 | 4.95  | 9.90  | 4th Generation Colorimetric                |
|                    | µmol/l | 46.7   | 37.4 | 56.0 | 4.65  | 9.30  | 5th Generation Colorimetric                |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte          | unit            | Target | low  | high  | 1SD   | 2SD                 | methods                          |                                        |
|------------------|-----------------|--------|------|-------|-------|---------------------|----------------------------------|----------------------------------------|
| Bilirubin Direct | µmol/l          | 27.9   | 22.0 | 33.8  | 2.95  | 5.90                | Diazo with Sulphanilic Acid      |                                        |
|                  | mg/dl           | 1.63   | 1.29 | 1.97  | 0.17  | 0.34                |                                  |                                        |
|                  | µmol/l          | 26.5   | 20.9 | 32.1  | 2.80  | 5.60                | Diazo with Dichloroaniline (DCA) |                                        |
|                  | mg/dl           | 1.55   | 1.22 | 1.88  | 0.17  | 0.33                |                                  |                                        |
|                  | µmol/l          | 30.0   | 23.7 | 36.3  | 3.15  | 6.30                | Oxidation to Biliverdin/Vanadate |                                        |
|                  | mg/dl           | 1.76   | 1.39 | 2.13  | 0.19  | 0.37                |                                  |                                        |
|                  | µmol/l          | 30.0   | 23.7 | 36.3  | 3.15  | 6.30                | Modified Jendrassik              |                                        |
|                  | mg/dl           | 1.76   | 1.39 | 2.13  | 0.19  | 0.37                |                                  |                                        |
|                  | Bilirubin Total | µmol/l | 80.5 | 63.6  | 97.4  | 8.45                | 16.90                            | Vitros 250/500/700/950 Total Bilirubin |
|                  |                 | mg/dl  | 4.71 | 3.72  | 5.70  | 0.50                | 0.99                             |                                        |
| µmol/l           |                 | 91.0   | 71.9 | 110   | 9.55  | 19.10               | Diazo with Dichloroaniline (DCA) |                                        |
| mg/dl            |                 | 5.32   | 4.21 | 6.43  | 0.56  | 1.11                |                                  |                                        |
| µmol/l           |                 | 86.7   | 68.5 | 105   | 9.10  | 18.20               | Diazo with Sulphanilic Acid      |                                        |
| mg/dl            |                 | 5.07   | 4.01 | 6.13  | 0.53  | 1.06                |                                  |                                        |
| µmol/l           |                 | 81.6   | 64.5 | 98.7  | 8.55  | 17.10               | Dichlorophenyl Diazonium (DPD)   |                                        |
| mg/dl            |                 | 4.77   | 3.77 | 5.77  | 0.50  | 1.00                |                                  |                                        |
| µmol/l           |                 | 87.1   | 68.8 | 105   | 9.15  | 18.30               | Nitrobenzenediazonium salt       |                                        |
| mg/dl            |                 | 5.10   | 4.02 | 6.18  | 0.54  | 1.08                |                                  |                                        |
| µmol/l           |                 | 83.9   | 66.2 | 102   | 8.85  | 17.70               | Diazonium ion                    |                                        |
| mg/dl            |                 | 4.91   | 3.87 | 5.95  | 0.52  | 1.04                |                                  |                                        |
| µmol/l           |                 | 98.2   | 77.6 | 119   | 10.30 | 20.60               | Oxidation to Biliverdin/Vanadate |                                        |
| mg/dl            |                 | 5.74   | 4.54 | 6.94  | 0.60  | 1.20                |                                  |                                        |
| µmol/l           | 96.9            | 76.6   | 117  | 10.15 | 20.30 | Modified Jendrassik |                                  |                                        |
| mg/dl            | 5.67            | 4.48   | 6.86 | 0.60  | 1.19  |                     |                                  |                                        |
| Calcium          | mmol/l          | 3.10   | 2.79 | 3.41  | 0.16  | 0.31                | Cresolphthalein complexone       |                                        |
|                  | mg/dl           | 12.4   | 11.2 | 13.6  | 0.60  | 1.20                |                                  |                                        |



## MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

| Analyte        | unit   | Target | Range |       | 1SD    | 2SD             | methods                              |
|----------------|--------|--------|-------|-------|--------|-----------------|--------------------------------------|
|                |        |        | low   | high  |        |                 |                                      |
| Calcium        | mmol/l | 3.12   | 2.80  | 3.44  | 0.16   | 0.32            | Ortho Vitros Microslide Systems      |
|                | mg/dl  | 12.5   | 11.2  | 13.8  | 0.65   | 1.30            |                                      |
|                | mmol/l | 3.00   | 2.70  | 3.30  | 0.15   | 0.30            | Ion selective electrode              |
|                | mg/dl  | 12.0   | 10.8  | 13.2  | 0.60   | 1.20            |                                      |
|                | mmol/l | 3.10   | 2.79  | 3.41  | 0.16   | 0.31            | Arsenazo III                         |
|                | mg/dl  | 12.4   | 11.2  | 13.6  | 0.60   | 1.20            |                                      |
|                | mmol/l | 3.11   | 2.79  | 3.43  | 0.16   | 0.32            | NM-BAPTA                             |
|                | mg/dl  | 12.5   | 11.2  | 13.8  | 0.65   | 1.30            |                                      |
| mmol/l         | 1.17   | 1.05   | 1.29  | 0.06  | 0.12   | Ionised calcium |                                      |
| mg/dl          | 4.69   | 4.21   | 5.17  | 0.24  | 0.48   |                 |                                      |
| Chloride       | mmol/l | 118    | 109   | 127   | 4.50   | 9.00            | Colorimetric                         |
|                | mmol/l | 121    | 111   | 131   | 5.00   | 10.00           | Ortho Vitros Microslide Systems      |
|                | mmol/l | 119    | 110   | 128   | 4.50   | 9.00            | ISE indirect                         |
|                | mmol/l | 119    | 109   | 129   | 5.00   | 10.00           | ISE direct                           |
| Cholesterol    | mmol/l | 6.74   | 5.86  | 7.62  | 0.44   | 0.88            | Ortho Vitros Microslide Systems      |
|                | mg/dl  | 260    | 226   | 294   | 17.00  | 34.00           |                                      |
|                | mmol/l | 7.11   | 6.19  | 8.03  | 0.46   | 0.92            | Cholesterol Oxidase                  |
| mg/dl          | 274    | 239    | 309   | 17.50 | 35.00  |                 |                                      |
| Cholinesterase | U/l    | 4967   | 3974  | 5960  | 496.50 | 993.00          | Colorimetric Butyrylthiocholine 37°C |
| CK Total       | U/l    | 420    | 345   | 495   | 37.50  | 75.00           | Ortho Vitros Microslide Systems 37°C |
|                | U/l    | 513    | 421   | 605   | 46.00  | 92.00           | CK-NAC serum start (DGKC) 37°C       |
|                | U/l    | 321    | 264   | 378   | 28.50  | 57.00           | CK-NAC serum start (DGKC) 30°C       |
|                | U/l    | 218    | 179   | 257   | 19.50  | 39.00           | CK-NAC serum start (DGKC) 25°C       |
|                | U/l    | 491    | 403   | 579   | 44.00  | 88.00           | CK-NAC substrate start (DGKC) 37°C   |
|                | U/l    | 307    | 252   | 362   | 27.50  | 55.00           | CK-NAC substrate start (DGKC) 30°C   |
|                | U/l    | 209    | 171   | 247   | 19.00  | 38.00           | CK-NAC substrate start (DGKC) 25°C   |



## MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte    | unit   | Target | low  | high  | 1SD    | 2SD                                   | methods                                |
|------------|--------|--------|------|-------|--------|---------------------------------------|----------------------------------------|
| CK Total   | U/l    | 494    | 405  | 583   | 44.50  | 89.00                                 | CK-NAC (IFCC) 37°C                     |
|            | U/l    | 309    | 254  | 364   | 27.50  | 55.00                                 | CK-NAC (IFCC) 30°C                     |
|            | U/l    | 210    | 172  | 248   | 19.00  | 38.00                                 | CK-NAC (IFCC) 25°C                     |
|            | U/l    | 533    | 437  | 629   | 48.00  | 96.00                                 | Monothioglycerol 37°C                  |
|            | U/l    | 334    | 274  | 394   | 30.00  | 60.00                                 | Monothioglycerol 30°C                  |
|            | U/l    | 227    | 186  | 268   | 20.50  | 41.00                                 | Monothioglycerol 25°C                  |
| Copper     | µmol/l | 27.6   | 22.1 | 33.1  | 2.75   | 5.50                                  | Atomic absorption                      |
|            | µg/dl  | 176    | 141  | 211   | 17.50  | 35.00                                 |                                        |
|            | µmol/l | 26.5   | 21.2 | 31.8  | 2.65   | 5.30                                  | Colorimetric                           |
|            | µg/dl  | 169    | 135  | 203   | 17.00  | 34.00                                 |                                        |
| Cortisol   | nmol/l | 1073   | 805  | 1341  | 134.00 | 268.00                                | Roche Cobas E411                       |
|            | µg/dl  | 38.6   | 29.0 | 48.2  | 4.80   | 9.60                                  |                                        |
| Creatinine | µmol/l | 369    | 295  | 443   | 37.00  | 74.00                                 | Alkaline picrate with deproteinization |
|            | mg/dl  | 4.17   | 3.33 | 5.01  | 0.42   | 0.84                                  |                                        |
|            | µmol/l | 373    | 299  | 447   | 37.00  | 74.00                                 | Alkaline picrate no deproteinization   |
|            | mg/dl  | 4.21   | 3.38 | 5.04  | 0.42   | 0.83                                  |                                        |
|            | µmol/l | 387    | 309  | 465   | 39.00  | 78.00                                 | Enzymatic UV method                    |
|            | mg/dl  | 4.37   | 3.49 | 5.25  | 0.44   | 0.88                                  |                                        |
|            | µmol/l | 390    | 312  | 468   | 39.00  | 78.00                                 | Creatinine PAP method                  |
|            | mg/dl  | 4.41   | 3.53 | 5.29  | 0.44   | 0.88                                  |                                        |
|            | µmol/l | 379    | 303  | 455   | 38.00  | 76.00                                 | Jaffe rate blanked                     |
|            | mg/dl  | 4.28   | 3.42 | 5.14  | 0.43   | 0.86                                  |                                        |
| µmol/l     | 385    | 308    | 462  | 38.50 | 77.00  | Jaffe rate blanked comp. (-26 µmol/l) |                                        |
| mg/dl      | 4.35   | 3.48   | 5.22 | 0.44  | 0.87   |                                       |                                        |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD                        | methods                                     |
|---------------------|--------|--------|------|------|-------|----------------------------|---------------------------------------------|
| Creatinine          | µmol/l | 375    | 300  | 450  | 37.50 | 75.00                      | Jaffe rate blanked compensated (-18 µmol/l) |
|                     | mg/dl  | 4.24   | 3.39 | 5.09 | 0.43  | 0.85                       |                                             |
|                     | µmol/l | 391    | 313  | 469  | 39.00 | 78.00                      | Vitros IDMS Traceable                       |
|                     | mg/dl  | 4.42   | 3.54 | 5.30 | 0.44  | 0.88                       |                                             |
|                     | µmol/l | 382    | 305  | 459  | 38.50 | 77.00                      | IDMS traceable                              |
|                     | mg/dl  | 4.32   | 3.45 | 5.19 | 0.44  | 0.87                       |                                             |
| D-3-Hydroxybutyrate | mmol/l | 1.21   | 1.03 | 1.39 | 0.09  | 0.18                       | Tris buffer 100mmol pH 8.5                  |
| Digoxin             | nmol/l | 4.03   | 3.22 | 4.84 | 0.41  | 0.81                       | Immunoturbidimetric                         |
|                     | ng/ml  | 3.15   | 2.51 | 3.79 | 0.32  | 0.64                       |                                             |
| Folate              | nmol/l | 14.5   | 11.0 | 18.0 | 1.75  | 3.50                       | Roche Cobas E411                            |
|                     | ng/ml  | 6.39   | 4.85 | 7.93 | 0.77  | 1.54                       |                                             |
| Free T4             | pmol/l | 55.0   | 41.2 | 68.8 | 6.90  | 13.80                      | Abbott Architect                            |
|                     | ng/dl  | 4.29   | 3.21 | 5.37 | 0.54  | 1.08                       |                                             |
|                     | pg/ml  | 42.9   | 32.1 | 53.7 | 5.40  | 10.80                      | Abbott Architect                            |
|                     | pmol/l | 77.3   | 58.0 | 96.6 | 9.65  | 19.30                      | Siemens Centaur XP/XPT/Classic              |
|                     | ng/dl  | 6.03   | 4.52 | 7.54 | 0.76  | 1.51                       |                                             |
|                     | pg/ml  | 60.3   | 45.2 | 75.4 | 7.55  | 15.10                      | Siemens Centaur XP/XPT/Classic              |
|                     | pmol/l | 62.1   | 46.6 | 77.6 | 7.75  | 15.50                      | Beckman Access                              |
|                     | ng/dl  | 4.84   | 3.63 | 6.05 | 0.61  | 1.21                       |                                             |
|                     | pg/ml  | 48.4   | 36.3 | 60.5 | 6.05  | 12.10                      | Beckman Access                              |
|                     | pmol/l | 63.3   | 47.4 | 79.2 | 7.95  | 15.90                      | Beckman Dxl800                              |
|                     | ng/dl  | 4.94   | 3.70 | 6.18 | 0.62  | 1.24                       |                                             |
|                     | pg/ml  | 49.4   | 37.0 | 61.8 | 6.20  | 12.40                      | Beckman Dxl800                              |
|                     | pmol/l | 72.4   | 54.3 | 90.5 | 9.05  | 18.10                      | Siemens Immulite 2000/2500                  |
| ng/dl               | 5.65   | 4.24   | 7.06 | 0.71 | 1.41  |                            |                                             |
| pg/ml               | 56.5   | 42.4   | 70.6 | 7.05 | 14.10 | Siemens Immulite 2000/2500 |                                             |

## MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte    | unit   | Target | low  | high | 1SD   | 2SD                       | methods                                       |
|------------|--------|--------|------|------|-------|---------------------------|-----------------------------------------------|
| Free T4    | pmol/l | 89.8   | 67.3 | 112  | 11.25 | 22.50                     | Vitros ECi                                    |
|            | ng/dl  | 7.00   | 5.25 | 8.75 | 0.88  | 1.75                      |                                               |
|            | pg/ml  | 70.0   | 52.5 | 87.5 | 8.75  | 17.50                     | Vitros ECi                                    |
|            | pmol/l | 97.3   | 73.0 | 122  | 12.15 | 24.30                     | Roche Elecsys                                 |
|            | ng/dl  | 7.59   | 5.69 | 9.49 | 0.95  | 1.90                      |                                               |
|            | pg/ml  | 75.9   | 56.9 | 94.9 | 9.50  | 19.00                     | Roche Elecsys                                 |
|            | pmol/l | 94.9   | 71.1 | 119  | 11.90 | 23.80                     | Roche Cobas E411                              |
|            | ng/dl  | 7.40   | 5.55 | 9.25 | 0.93  | 1.85                      |                                               |
|            | pg/ml  | 74.0   | 55.5 | 92.5 | 9.25  | 18.50                     | Roche Cobas E411                              |
|            | pmol/l | 93.8   | 70.4 | 117  | 11.70 | 23.40                     | Roche Cobas 6000/8000                         |
|            | ng/dl  | 7.32   | 5.49 | 9.15 | 0.92  | 1.83                      |                                               |
|            | pg/ml  | 73.2   | 54.9 | 91.5 | 9.15  | 18.30                     | Roche Cobas 6000/8000                         |
|            | pmol/l | 88.2   | 66.2 | 110  | 11.00 | 22.00                     | Biomerieux Vidas FT4N Kit                     |
|            | ng/dl  | 6.88   | 5.16 | 8.60 | 0.86  | 1.72                      |                                               |
| pg/ml      | 68.8   | 51.6   | 86.0 | 8.60 | 17.20 | Biomerieux Vidas FT4N Kit |                                               |
| Gentamicin | µmol/l | 18.9   | 15.1 | 22.6 | 1.88  | 3.75                      | Immunoturbidimetric                           |
|            | µg/ml  | 9.01   | 7.22 | 10.8 | 0.90  | 1.79                      |                                               |
| gamma-GT   | U/l    | 165    | 141  | 189  | 12.00 | 24.00                     | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
|            | U/l    | 130    | 111  | 149  | 9.50  | 19.00                     | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
|            | U/l    | 102    | 87   | 117  | 7.50  | 15.00                     | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
|            | U/l    | 205    | 174  | 236  | 15.50 | 31.00                     | Ortho Vitros Microslide Systems 37°C          |
|            | U/l    | 139    | 118  | 160  | 10.50 | 21.00                     | Gamma glutamyl-4-nitroanilide 37°C            |
|            | U/l    | 110    | 93   | 127  | 8.50  | 17.00                     | Gamma glutamyl-4-nitroanilide 30°C            |
|            | U/l    | 86     | 73   | 99   | 6.50  | 13.00                     | Gamma glutamyl-4-nitroanilide 25°C            |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte           | unit   | Target | low  | high  | 1SD   | 2SD             | methods                                              |
|-------------------|--------|--------|------|-------|-------|-----------------|------------------------------------------------------|
| gamma-GT          | U/l    | 174    | 148  | 200   | 13.00 | 26.00           | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C  |
|                   | U/l    | 137    | 117  | 157   | 10.00 | 20.00           | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C  |
|                   | U/l    | 107    | 91   | 123   | 8.00  | 16.00           | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C  |
|                   | U/l    | 186    | 158  | 214   | 14.00 | 28.00           | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
|                   | U/l    | 147    | 125  | 169   | 11.00 | 22.00           | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
|                   | U/l    | 115    | 97   | 133   | 9.00  | 18.00           | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| GLDH              | U/l    | 37     | 29   | 45    | 4.00  | 8.00            | Triethanolamine buffer 50 mmol 37°C                  |
|                   | U/l    | 28     | 22   | 34    | 3.00  | 6.00            | Triethanolamine buffer 50 mmol 30°C                  |
|                   | U/l    | 23     | 18   | 28    | 2.50  | 5.00            | Triethanolamine buffer 50 mmol 25°C                  |
| Glucose           | mmol/l | 14.4   | 12.2 | 16.6  | 1.10  | 2.20            | Ortho Vitros Microslide Systems                      |
|                   | mg/dl  | 259    | 220  | 298   | 19.50 | 39.00           |                                                      |
|                   | mmol/l | 15.5   | 13.2 | 17.8  | 1.15  | 2.30            | Glucose dehydrogenase                                |
|                   | mg/dl  | 279    | 238  | 320   | 20.50 | 41.00           |                                                      |
|                   | mmol/l | 15.6   | 13.2 | 18.0  | 1.20  | 2.40            | Hexokinase                                           |
|                   | mg/dl  | 281    | 238  | 324   | 21.50 | 43.00           |                                                      |
|                   | mmol/l | 15.0   | 12.7 | 17.3  | 1.15  | 2.30            | Oxygen electrode                                     |
|                   | mg/dl  | 270    | 229  | 311   | 20.50 | 41.00           |                                                      |
| mmol/l            | 15.4   | 13.1   | 17.7 | 1.15  | 2.30  | Glucose oxidase |                                                      |
| mg/dl             | 278    | 236    | 320  | 21.00 | 42.00 |                 |                                                      |
| HDL - Cholesterol | mmol/l | 2.72   | 2.31 | 3.13  | 0.21  | 0.41            | Direct HDL PPD                                       |
|                   | mg/dl  | 105    | 89.2 | 121   | 7.90  | 15.80           |                                                      |
|                   | mmol/l | 2.71   | 2.30 | 3.12  | 0.21  | 0.41            | Direct HDL Immunoseparation                          |
|                   | mg/dl  | 105    | 88.8 | 121   | 8.10  | 16.20           |                                                      |
|                   | mmol/l | 2.47   | 2.10 | 2.84  | 0.19  | 0.37            | Vitros Magnetic HDL                                  |
|                   | mg/dl  | 95.3   | 81.1 | 110   | 7.10  | 14.20           |                                                      |

## MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte                         | unit   | Target | low  | high | 1SD   | 2SD    | methods                                                |
|---------------------------------|--------|--------|------|------|-------|--------|--------------------------------------------------------|
| HDL - Cholesterol               | mmol/l | 2.91   | 2.47 | 3.35 | 0.22  | 0.44   | Direct HDL PEGME                                       |
|                                 | mg/dl  | 112    | 95.3 | 129  | 8.35  | 16.70  |                                                        |
|                                 | mmol/l | 2.57   | 2.18 | 2.96 | 0.20  | 0.39   | Direct Clearance Method                                |
|                                 | mg/dl  | 99.2   | 84.1 | 114  | 7.55  | 15.10  |                                                        |
|                                 | mmol/l | 2.41   | 2.05 | 2.77 | 0.18  | 0.36   | Vitros dHDL PTA/MgCl <sub>2</sub> direct precipitation |
|                                 | mg/dl  | 93.0   | 79.1 | 107  | 6.95  | 13.90  |                                                        |
|                                 | mmol/l | 3.52   | 2.99 | 4.05 | 0.27  | 0.53   | Direct HDL Roche 3rd generation                        |
|                                 | mg/dl  | 136    | 115  | 157  | 10.50 | 21.00  |                                                        |
| HDL - Ultra                     | mmol/l | 2.61   | 2.22 | 3.00 | 0.20  | 0.39   | HDL - Ultra                                            |
|                                 | mg/dl  | 101    | 85.7 | 116  | 7.65  | 15.30  |                                                        |
| Direct HDL Roche 4th Generation | mmol/l | 3.52   | 2.99 | 4.05 | 0.27  | 0.53   | Direct HDL Roche 4th Generation                        |
|                                 | mg/dl  | 136    | 115  | 157  | 10.50 | 21.00  |                                                        |
| Immunoglobulin A                | g/l    | 1.52   | 1.14 | 1.90 | 0.19  | 0.38   | Immunoturbidimetric                                    |
|                                 | mg/dl  | 152    | 114  | 190  | 19.00 | 38.00  |                                                        |
| Immunoglobulin G                | g/l    | 6.37   | 5.22 | 7.52 | 0.58  | 1.15   | Immunoturbidimetric                                    |
|                                 | mg/dl  | 637    | 522  | 752  | 57.50 | 115.00 |                                                        |
| Immunoglobulin M                | g/l    | 0.68   | 0.55 | 0.82 | 0.07  | 0.14   | Immunoturbidimetric                                    |
|                                 | mg/dl  | 68.2   | 54.6 | 81.8 | 6.80  | 13.60  |                                                        |
| Iron                            | μmol/l | 39.0   | 31.9 | 46.1 | 3.55  | 7.10   | Colorimetric with ppt.                                 |
|                                 | μg/dl  | 218    | 178  | 258  | 20.00 | 40.00  |                                                        |
|                                 | μmol/l | 39.0   | 32.0 | 46.0 | 3.50  | 7.00   | Colorimetric without ppt.                              |
|                                 | μg/dl  | 218    | 179  | 257  | 19.50 | 39.00  |                                                        |
|                                 | μmol/l | 38.8   | 31.8 | 45.8 | 3.50  | 7.00   | Ortho Vitros Microslide Systems                        |
|                                 | μg/dl  | 217    | 178  | 256  | 19.50 | 39.00  |                                                        |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte  | unit   | Target | low  | high  | 1SD   | 2SD            | methods                         |
|----------|--------|--------|------|-------|-------|----------------|---------------------------------|
| Lactate  | mmol/l | 5.26   | 4.31 | 6.21  | 0.48  | 0.95           | Ion selective electrode         |
|          | mg/dl  | 47.4   | 38.8 | 56.0  | 4.30  | 8.60           |                                 |
|          | mmol/l | 5.46   | 4.48 | 6.44  | 0.49  | 0.98           | Colorimetric Lactate Oxidase    |
|          | mg/dl  | 49.2   | 40.4 | 58.0  | 4.40  | 8.80           |                                 |
|          | mmol/l | 5.12   | 4.20 | 6.04  | 0.46  | 0.92           | Ortho Vitros Microslide Systems |
|          | mg/dl  | 46.1   | 37.8 | 54.4  | 4.15  | 8.30           |                                 |
|          | mmol/l | 5.37   | 4.41 | 6.33  | 0.48  | 0.96           | Enzymatic Electrode             |
|          | mg/dl  | 48.4   | 39.7 | 57.1  | 4.35  | 8.70           |                                 |
| mmol/l   | 5.28   | 4.33   | 6.23 | 0.48  | 0.95  | UV LDH         |                                 |
| mg/dl    | 47.6   | 39.0   | 56.2 | 4.30  | 8.60  |                |                                 |
| LAP      | U/l    | 18     | 15   | 21    | 1.50  | 3.00           | NAGEL 37°C                      |
| LD (LDH) | U/l    | 329    | 280  | 378   | 24.50 | 49.00          | L->P 37°C                       |
|          | U/l    | 238    | 202  | 274   | 18.00 | 36.00          | L->P 30°C                       |
|          | U/l    | 167    | 142  | 192   | 12.50 | 25.00          | L->P 25°C                       |
|          | U/l    | 799    | 679  | 919   | 60.00 | 120.00         | P->L Scandinavian & Dutch 37°C  |
|          | U/l    | 577    | 490  | 664   | 43.50 | 87.00          | P->L Scandinavian & Dutch 30°C  |
|          | U/l    | 405    | 344  | 466   | 30.50 | 61.00          | P->L Scandinavian & Dutch 25°C  |
|          | U/l    | 706    | 600  | 812   | 53.00 | 106.00         | P->L German methods 37°C        |
|          | U/l    | 510    | 433  | 587   | 38.50 | 77.00          | P->L German methods 30°C        |
|          | U/l    | 358    | 304  | 412   | 27.00 | 54.00          | P->L German methods 25°C        |
|          | U/l    | 717    | 609  | 825   | 54.00 | 108.00         | P->L SFBC 37°C                  |
|          | U/l    | 518    | 440  | 596   | 39.00 | 78.00          | P->L SFBC 30°C                  |
|          | U/l    | 364    | 309  | 419   | 27.50 | 55.00          | P->L SFBC 25°C                  |
|          | U/l    | 370    | 315  | 425   | 27.50 | 55.00          | L->P IFCC 37°C                  |
|          | U/l    | 267    | 227  | 307   | 20.00 | 40.00          | L->P IFCC 30°C                  |
| U/l      | 188    | 160    | 216  | 14.00 | 28.00 | L->P IFCC 25°C |                                 |

## MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte   | unit   | Target | low  | high | 1SD   | 2SD    | methods                              |
|-----------|--------|--------|------|------|-------|--------|--------------------------------------|
| Lipase    | U/l    | 704    | 564  | 844  | 70.00 | 140.00 | Ortho Vitros Microslide Systems 37°C |
|           | U/l    | 53     | 42   | 64   | 5.50  | 11.00  | Roche Colorimetric 37°C              |
|           | U/l    | 85     | 68   | 102  | 8.50  | 17.00  | Randox Colorimetric 37°C             |
| Lithium   | mmol/l | 2.17   | 1.91 | 2.43 | 0.13  | 0.26   | Ion selective electrode              |
|           | mg/dl  | 1.51   | 1.33 | 1.69 | 0.09  | 0.18   |                                      |
|           | mmol/l | 2.07   | 1.82 | 2.32 | 0.13  | 0.25   | Spectrophotometric                   |
|           | mg/dl  | 1.44   | 1.26 | 1.62 | 0.09  | 0.18   |                                      |
|           | mmol/l | 2.15   | 1.89 | 2.41 | 0.13  | 0.26   | Randox Colorimetric                  |
| Magnesium | mmol/l | 1.79   | 1.57 | 2.01 | 0.11  | 0.22   | Arsenazo III                         |
|           | mg/dl  | 4.35   | 3.82 | 4.88 | 0.27  | 0.53   |                                      |
|           | mmol/l | 1.85   | 1.63 | 2.07 | 0.11  | 0.22   | Ortho Vitros Microslide Systems      |
|           | mg/dl  | 4.50   | 3.96 | 5.04 | 0.27  | 0.54   |                                      |
|           | mmol/l | 1.75   | 1.54 | 1.96 | 0.11  | 0.21   | Calmagite                            |
|           | mg/dl  | 4.25   | 3.74 | 4.76 | 0.26  | 0.51   |                                      |
|           | mmol/l | 1.79   | 1.57 | 2.01 | 0.11  | 0.22   | Xylidyl Blue                         |
|           | mg/dl  | 4.35   | 3.82 | 4.88 | 0.27  | 0.53   |                                      |
|           | mmol/l | 1.76   | 1.55 | 1.97 | 0.11  | 0.21   | Methylthymol blue                    |
|           | mg/dl  | 4.28   | 3.77 | 4.79 | 0.26  | 0.51   |                                      |
|           | mmol/l | 1.79   | 1.58 | 2.00 | 0.11  | 0.21   | Chlorphosponazo III                  |
|           | mg/dl  | 4.35   | 3.84 | 4.86 | 0.26  | 0.51   |                                      |
|           | mmol/l | 1.79   | 1.57 | 2.01 | 0.11  | 0.22   | Enzymatic                            |
|           | mg/dl  | 4.35   | 3.82 | 4.88 | 0.27  | 0.53   |                                      |
| NEFA      | mmol/l | 0.62   | 0.52 | 0.71 | 0.05  | 0.09   | Colorimetric                         |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte             | unit    | Target | low  | high | 1SD   | 2SD   | methods                                  |
|---------------------|---------|--------|------|------|-------|-------|------------------------------------------|
| Osmolality          | mOsm/kg | 352    | 281  | 423  | 35.50 | 71.00 | Calculated                               |
|                     | mOsm/kg | 379    | 303  | 455  | 38.00 | 76.00 | Freezing point depression                |
| Paracetamol         | mmol/l  | 0.62   | 0.50 | 0.74 | 0.06  | 0.12  | Colorimetric                             |
|                     | mg/l    | 93.8   | 75.0 | 113  | 9.40  | 18.80 |                                          |
| Phosphate Inorganic | mmol/l  | 2.24   | 1.90 | 2.58 | 0.17  | 0.34  | Ortho Vitros Microslide Systems          |
|                     | mg/dl   | 6.94   | 5.89 | 7.99 | 0.53  | 1.05  |                                          |
|                     | mmol/l  | 2.23   | 1.90 | 2.56 | 0.17  | 0.33  | Phosphomolybdate enzymatic               |
|                     | mg/dl   | 6.91   | 5.89 | 7.93 | 0.51  | 1.02  |                                          |
|                     | mmol/l  | 2.24   | 1.91 | 2.57 | 0.17  | 0.33  | Phosphomolybdate UV                      |
| Potassium           | mmol/l  | 6.32   | 5.82 | 6.82 | 0.25  | 0.50  | Ortho Vitros Microslide Systems          |
|                     | mmol/l  | 6.55   | 6.03 | 7.07 | 0.26  | 0.52  | Enzymatic                                |
|                     | mmol/l  | 6.31   | 5.81 | 6.81 | 0.25  | 0.50  | ISE method - direct                      |
|                     | mmol/l  | 6.38   | 5.87 | 6.89 | 0.26  | 0.51  | ISE method - indirect                    |
| Protein Total       | g/l     | 47.3   | 37.8 | 56.8 | 4.75  | 9.50  | Ortho Vitros Microslide Systems          |
|                     | g/dl    | 4.73   | 3.78 | 5.68 | 0.48  | 0.95  |                                          |
|                     | g/l     | 46.0   | 36.8 | 55.2 | 4.60  | 9.20  | Biuret reaction end point                |
|                     | g/dl    | 4.60   | 3.68 | 5.52 | 0.46  | 0.92  |                                          |
|                     | g/l     | 45.5   | 36.4 | 54.6 | 4.55  | 9.10  | Biuret reaction kinetic                  |
| PSA Total           | ng/ml = | 37.7   | 28.3 | 47.1 | 4.70  | 9.40  | Beckman Access standardised to Hybritech |
|                     | ng/ml = | 30.4   | 22.8 | 38.0 | 3.80  | 7.60  | bioMerieux VIDAS TPSA                    |
|                     | ng/ml = | 30.6   | 22.9 | 38.3 | 3.85  | 7.70  | Siemens Centaur XP/XPT/Classic           |
|                     | ng/ml = | 25.3   | 19.0 | 31.6 | 3.15  | 6.30  | Abbott Architect                         |
|                     | ng/ml = | 35.5   | 26.7 | 44.3 | 4.40  | 8.80  | Cobas E411                               |



## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte                     | unit    | Target | low  | high | 1SD   | 2SD   | methods                                   |
|-----------------------------|---------|--------|------|------|-------|-------|-------------------------------------------|
| PSA Total                   | ng/ml = | 33.7   | 25.2 | 42.2 | 4.25  | 8.50  | Roche Cobas 6000/8000                     |
| Salicylate                  | mmol/l  | 0.87   | 0.70 | 1.04 | 0.09  | 0.17  | Gravimetric                               |
|                             | mg/dl   | 12.0   | 9.59 | 14.4 | 1.21  | 2.41  |                                           |
| Sodium                      | mmol/l  | 156    | 148  | 164  | 4.00  | 8.00  | Ortho Vitros Microslide Systems           |
|                             | mmol/l  | 155    | 147  | 163  | 4.00  | 8.00  | Enzymatic                                 |
|                             | mmol/l  | 158    | 150  | 166  | 4.00  | 8.00  | ISE method - direct                       |
|                             | mmol/l  | 159    | 151  | 167  | 4.00  | 8.00  | ISE method - indirect                     |
| Theophylline                | µmol/l  | 139    | 111  | 167  | 14.00 | 28.00 | Gravimetric                               |
|                             | µg/ml   | 25.0   | 20.0 | 30.0 | 2.50  | 5.00  |                                           |
| Thyroid Stimulating Hormone | µU/ml = | 0.82   | 0.66 | 0.99 | 0.08  | 0.16  | Abbott Architect                          |
|                             | µU/ml = | 1.30   | 1.04 | 1.56 | 0.13  | 0.26  | Siemens Centaur XP/XPT/Classic            |
|                             | µU/ml = | 0.96   | 0.77 | 1.16 | 0.10  | 0.19  | Beckman Access hyperTSH 3rd Generation    |
|                             | µU/ml = | 1.02   | 0.81 | 1.23 | 0.10  | 0.21  | bioMerieux VIDAS TSH                      |
|                             | µU/ml = | 1.06   | 0.85 | 1.27 | 0.11  | 0.21  | bioMerieux VIDAS TSH3 Ultrasensitive      |
|                             | µU/ml = | 1.02   | 0.82 | 1.22 | 0.10  | 0.20  | Siemens Immulite 2000/2500                |
|                             | µU/ml = | 1.20   | 0.96 | 1.44 | 0.12  | 0.24  | Roche Cobas E411                          |
|                             | µU/ml = | 1.20   | 0.96 | 1.44 | 0.12  | 0.24  | Roche Cobas Core EIA                      |
|                             | µU/ml = | 1.18   | 0.94 | 1.42 | 0.12  | 0.24  | Roche Cobas 6000/8000                     |
|                             | µU/ml = | 0.96   | 0.77 | 1.15 | 0.10  | 0.19  | Beckman Dxl800 Hyper TSH                  |
|                             | µU/ml = | 0.91   | 0.73 | 1.10 | 0.09  | 0.18  | Siemens Centaur XP/XPT/Classic TSH3-Ultra |
|                             | µU/ml = | 0.92   | 0.74 | 1.10 | 0.09  | 0.18  | Beckman Dxl 600/800 Access (3rd IS)       |
| TIBC                        | µmol/l  | 37.8   | 29.9 | 45.7 | 3.95  | 7.90  | Removal of excess free iron               |
|                             | µg/dl   | 211    | 167  | 255  | 22.00 | 44.00 |                                           |
|                             | µmol/l  | 41.2   | 32.6 | 49.8 | 4.30  | 8.60  | FE+UIBC(saturation with iron)             |
|                             | µg/dl   | 230    | 182  | 278  | 24.00 | 48.00 |                                           |



## MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte    | unit   | Target | low  | high | 1SD   | 2SD   | methods                        |
|------------|--------|--------|------|------|-------|-------|--------------------------------|
| TIBC       | µmol/l | 41.8   | 33.0 | 50.6 | 4.40  | 8.80  | Direct Colorimetric            |
|            | µg/dl  | 234    | 184  | 284  | 25.00 | 50.00 |                                |
|            | µmol/l | 40.6   | 32.0 | 49.2 | 4.30  | 8.60  | Calculated from Transferrin    |
|            | µg/dl  | 227    | 179  | 275  | 24.00 | 48.00 |                                |
| Tobramycin | µmol/l | 15.6   | 12.5 | 18.7 | 1.55  | 3.10  | Gravimetric                    |
|            | µg/ml  | 7.30   | 5.85 | 8.75 | 0.73  | 1.45  |                                |
| Total T3   | nmol/l | 2.97   | 2.23 | 3.71 | 0.37  | 0.74  | Abbott Architect               |
|            | ng/ml  | 1.93   | 1.45 | 2.41 | 0.24  | 0.48  |                                |
|            | ng/dl  | 193    | 145  | 241  | 24.00 | 48.00 | Abbott Architect               |
|            | nmol/l | 3.36   | 2.52 | 4.20 | 0.42  | 0.84  | Beckman Access                 |
|            | ng/ml  | 2.19   | 1.64 | 2.74 | 0.28  | 0.55  |                                |
|            | ng/dl  | 219    | 164  | 274  | 27.50 | 55.00 | Beckman Access                 |
|            | nmol/l | 4.19   | 3.14 | 5.24 | 0.53  | 1.05  | Siemens Centaur XP/XPT/Classic |
|            | ng/ml  | 2.73   | 2.04 | 3.42 | 0.35  | 0.69  |                                |
|            | ng/dl  | 273    | 204  | 342  | 34.50 | 69.00 | Siemens Centaur XP/XPT/Classic |
|            | nmol/l | 3.89   | 2.91 | 4.87 | 0.49  | 0.98  | Roche Cobas E411               |
|            | ng/ml  | 2.53   | 1.89 | 3.17 | 0.32  | 0.64  |                                |
|            | ng/dl  | 253    | 189  | 317  | 32.00 | 64.00 | Roche Cobas E411               |
| Total T4   | nmol/l | 3.92   | 2.94 | 4.90 | 0.49  | 0.98  | Roche Cobas 6000/8000          |
|            | ng/ml  | 2.55   | 1.91 | 3.19 | 0.32  | 0.64  |                                |
|            | ng/dl  | 255    | 191  | 319  | 32.00 | 64.00 | Roche Cobas 6000/8000          |
|            | nmol/l | 250    | 188  | 312  | 31.00 | 62.00 | Abbott Architect               |
| Total T4   | µg/dl  | 19.5   | 14.7 | 24.3 | 2.40  | 4.80  |                                |
|            | ng/ml  | 195    | 147  | 243  | 24.00 | 48.00 | Abbott Architect               |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte       | unit   | Target | low  | high  | 1SD   | 2SD                   | methods                              |
|---------------|--------|--------|------|-------|-------|-----------------------|--------------------------------------|
| Total T4      | nmol/l | 239    | 179  | 299   | 30.00 | 60.00                 | Siemens Centaur XP/XPT/Classic       |
|               | µg/dl  | 18.6   | 14.0 | 23.2  | 2.30  | 4.60                  |                                      |
|               | ng/ml  | 186    | 140  | 232   | 23.00 | 46.00                 | Siemens Centaur XP/XPT/Classic       |
|               | nmol/l | 201    | 151  | 251   | 25.00 | 50.00                 | Roche Cobas E411                     |
|               | µg/dl  | 15.7   | 11.8 | 19.6  | 1.95  | 3.90                  |                                      |
|               | ng/ml  | 157    | 118  | 196   | 19.50 | 39.00                 | Roche Cobas E411                     |
|               | nmol/l | 201    | 151  | 251   | 25.00 | 50.00                 | Roche Cobas 6000/8000                |
|               | µg/dl  | 15.7   | 11.8 | 19.6  | 1.95  | 3.90                  |                                      |
|               | ng/ml  | 157    | 118  | 196   | 19.50 | 39.00                 | Roche Cobas 6000/8000                |
|               | nmol/l | 197    | 148  | 246   | 24.50 | 49.00                 | Microgenics DRI assay                |
| µg/dl         | 15.4   | 11.5   | 19.3 | 1.95  | 3.90  |                       |                                      |
| ng/ml         | 154    | 115    | 193  | 19.50 | 39.00 | Microgenics DRI assay |                                      |
| Transferrin   | g/l    | 1.72   | 1.38 | 2.06  | 0.17  | 0.34                  | Immunoturbidimetric                  |
|               | mg/dl  | 172    | 138  | 206   | 17.00 | 34.00                 |                                      |
| Triglycerides | mmol/l | 2.95   | 2.48 | 3.42  | 0.24  | 0.47                  | Lipase/GPO-PAP no correction         |
|               | mg/dl  | 261    | 219  | 303   | 21.00 | 42.00                 |                                      |
|               | mmol/l | 2.95   | 2.48 | 3.42  | 0.24  | 0.47                  | Lipase/GPO-PAP 0.11mmol/l correction |
|               | mg/dl  | 261    | 219  | 303   | 21.00 | 42.00                 |                                      |
|               | mmol/l | 2.97   | 2.49 | 3.45  | 0.24  | 0.48                  | L/G Kinase EP. no correction         |
|               | mg/dl  | 263    | 220  | 306   | 21.50 | 43.00                 |                                      |
|               | mmol/l | 2.95   | 2.48 | 3.42  | 0.24  | 0.47                  | Lipase/Glycerol Dehydrogenase        |
|               | mg/dl  | 261    | 219  | 303   | 21.00 | 42.00                 |                                      |
|               | mmol/l | 3.22   | 2.70 | 3.74  | 0.26  | 0.52                  | Ortho Vitros Microslide Systems      |
|               | mg/dl  | 285    | 239  | 331   | 23.00 | 46.00                 |                                      |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte           | unit   | Target | low  | high | 1SD   | 2SD                                               | methods                                   |
|-------------------|--------|--------|------|------|-------|---------------------------------------------------|-------------------------------------------|
| UIBC              | µmol/l | 2.80   | 2.30 | 3.30 | 0.25  | 0.50                                              | TIBC - FE                                 |
|                   | µg/dl  | 15.7   | 12.9 | 18.5 | 1.40  | 2.80                                              |                                           |
| Urea              | mmol/l | 17.9   | 15.3 | 20.5 | 1.30  | 2.60                                              | Ortho Vitros Microslide Systems           |
|                   | mg/dl  | 108    | 92.0 | 124  | 8.00  | 16.00                                             |                                           |
|                   | mmol/l | 19.6   | 16.6 | 22.6 | 1.50  | 3.00                                              | Urease end point                          |
|                   | mg/dl  | 118    | 99.8 | 136  | 9.10  | 18.20                                             |                                           |
|                   | mmol/l | 19.5   | 16.5 | 22.5 | 1.50  | 3.00                                              | Urease kinetic                            |
|                   | mg/dl  | 117    | 99.2 | 135  | 8.90  | 17.80                                             |                                           |
| mmol/l            | 19.5   | 16.6   | 22.4 | 1.45 | 2.90  | BUN                                               |                                           |
| mg/dl             | 54.7   | 46.5   | 62.9 | 4.10 | 8.20  |                                                   |                                           |
| Uric Acid (Urate) | mmol/l | 0.52   | 0.45 | 0.59 | 0.03  | 0.07                                              | Ortho Vitros Microslide Systems           |
|                   | mg/dl  | 8.77   | 7.63 | 9.91 | 0.57  | 1.14                                              |                                           |
|                   | mmol/l | 0.56   | 0.49 | 0.63 | 0.04  | 0.07                                              | Uricase catalase 340nm                    |
|                   | mg/dl  | 9.42   | 8.20 | 10.6 | 0.61  | 1.22                                              |                                           |
|                   | mmol/l | 0.56   | 0.48 | 0.63 | 0.04  | 0.07                                              | Uricase peroxidase with ascorbate oxidase |
|                   | mg/dl  | 9.34   | 8.13 | 10.6 | 0.61  | 1.21                                              |                                           |
|                   | mmol/l | 0.55   | 0.48 | 0.63 | 0.04  | 0.07                                              | Uricase peroxidase no ascorbate oxidase   |
|                   | mg/dl  | 9.29   | 8.08 | 10.5 | 0.61  | 1.21                                              |                                           |
| mmol/l            | 0.55   | 0.48   | 0.62 | 0.04 | 0.07  | Spectrophotometric at 280-290                     |                                           |
| mg/dl             | 9.21   | 8.01   | 10.4 | 0.60 | 1.20  |                                                   |                                           |
| mmol/l            | 0.55   | 0.48   | 0.62 | 0.04 | 0.07  | Uricase Peroxidase with ascorbate oxidase @ 546nm |                                           |
| mg/dl             | 9.21   | 8.01   | 10.4 | 0.60 | 1.20  |                                                   |                                           |
| Vitamin B12       | pmol/l | 257    | 206  | 308  | 25.50 | 51.00                                             | Roche Cobas E411                          |
|                   | pg/ml  | 348    | 279  | 417  | 34.50 | 69.00                                             |                                           |
| Zinc              | µmol/l | 35.6   | 28.5 | 42.7 | 3.55  | 7.10                                              | Colorimetric with deproteinisation        |
|                   | µg/dl  | 232    | 186  | 278  | 23.00 | 46.00                                             |                                           |

**MEAN OF ALL INSTRUMENTS (Elec.)**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte                   | unit | Target | low  | high | 1SD  | 2SD  | methods                                |
|---------------------------|------|--------|------|------|------|------|----------------------------------------|
| Albumin (electrophoresis) |      | 58.3   | 52.5 | 64.1 | 2.90 | 5.80 | % of total Protein (Beckman Capillary) |
| alpha-1-globulin          |      | 7.2    | 5.5  | 8.9  | 0.87 | 1.73 | % of total Protein (Beckman Capillary) |
| alpha-2-globulin          |      | 11.1   | 8.4  | 13.8 | 1.33 | 2.66 | % of total Protein (Beckman Capillary) |
| beta-globulin             |      | 12.3   | 9.4  | 15.3 | 1.48 | 2.95 | % of total Protein (Beckman Capillary) |
| gamma-globulin            |      | 11.1   | 8.4  | 13.8 | 1.33 | 2.66 | % of total Protein (Beckman Capillary) |

## MINDRAY BS-200/300/400

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte         | unit   | Target | low  | high | 1SD   | 2SD   | methods                          |
|-----------------|--------|--------|------|------|-------|-------|----------------------------------|
| Albumin         | g/l    | 32.2   | 27.3 | 37.1 | 2.45  | 4.90  | Bromocresol Green                |
|                 | g/dl   | 3.22   | 2.73 | 3.71 | 0.25  | 0.49  |                                  |
| ALT (GPT)       | U/l    | 148    | 118  | 178  | 15.00 | 30.00 | Tris buffer without P5P 37°C     |
|                 | U/l    | 110    | 87   | 133  | 11.50 | 23.00 | Tris buffer without P5P 30°C     |
|                 | U/l    | 83     | 66   | 100  | 8.50  | 17.00 | Tris buffer without P5P 25°C     |
| AST (GOT)       | U/l    | 147    | 117  | 177  | 15.00 | 30.00 | Tris buffer without P5P 37°C     |
|                 | U/l    | 99     | 79   | 119  | 10.00 | 20.00 | Tris buffer without P5P 30°C     |
|                 | U/l    | 70     | 56   | 84   | 7.00  | 14.00 | Tris buffer without P5P 25°C     |
| Bilirubin Total | µmol/l | 88.8   | 70.1 | 108  | 9.35  | 18.70 | Diazo with Sulphanilic Acid      |
|                 | mg/dl  | 5.19   | 4.10 | 6.28 | 0.55  | 1.09  |                                  |
|                 | µmol/l | 96.1   | 75.9 | 116  | 10.10 | 20.20 | Dichlorophenyl Diazonium (DPD)   |
|                 | mg/dl  | 5.62   | 4.44 | 6.80 | 0.59  | 1.18  |                                  |
|                 | µmol/l | 96.5   | 76.2 | 117  | 10.15 | 20.30 | Oxidation to Biliverdin/Vanadate |
|                 | mg/dl  | 5.65   | 4.46 | 6.84 | 0.60  | 1.19  |                                  |
| Calcium         | mmol/l | 3.23   | 2.91 | 3.55 | 0.16  | 0.32  | Arsenazo III                     |
|                 | mg/dl  | 12.9   | 11.7 | 14.1 | 0.60  | 1.20  |                                  |
| Cholesterol     | mmol/l | 7.31   | 6.36 | 8.26 | 0.48  | 0.95  | Cholesterol Oxidase              |
|                 | mg/dl  | 282    | 245  | 319  | 18.50 | 37.00 |                                  |
| CK Total        | U/l    | 534    | 438  | 630  | 48.00 | 96.00 | CK-NAC (IFCC) 37°C               |
|                 | U/l    | 334    | 274  | 394  | 30.00 | 60.00 | CK-NAC (IFCC) 30°C               |
|                 | U/l    | 227    | 186  | 268  | 20.50 | 41.00 | CK-NAC (IFCC) 25°C               |

## MINDRAY BS-200/300/400

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD    | methods                                             |
|---------------------|--------|--------|------|------|-------|--------|-----------------------------------------------------|
| Creatinine          | µmol/l | 364    | 292  | 436  | 36.00 | 72.00  | Alkaline picrate no deproteinization                |
|                     | mg/dl  | 4.11   | 3.30 | 4.92 | 0.41  | 0.81   |                                                     |
| gamma-GT            | U/l    | 174    | 148  | 200  | 13.00 | 26.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                     | U/l    | 137    | 117  | 157  | 10.00 | 20.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                     | U/l    | 107    | 91   | 123  | 8.00  | 16.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose             | mmol/l | 16.2   | 13.8 | 18.6 | 1.20  | 2.40   | Hexokinase                                          |
|                     | mg/dl  | 292    | 249  | 335  | 21.50 | 43.00  |                                                     |
|                     | mmol/l | 15.9   | 13.5 | 18.3 | 1.20  | 2.40   | Glucose oxidase                                     |
|                     | mg/dl  | 287    | 243  | 331  | 22.00 | 44.00  |                                                     |
| HDL - Cholesterol   | mmol/l | 2.55   | 2.16 | 2.94 | 0.20  | 0.39   | Direct Clearance Method                             |
|                     | mg/dl  | 98.4   | 83.4 | 113  | 7.50  | 15.00  |                                                     |
| Iron                | µmol/l | 39.1   | 32.0 | 46.2 | 3.55  | 7.10   | Colorimetric without ppt.                           |
|                     | µg/dl  | 219    | 179  | 259  | 20.00 | 40.00  |                                                     |
| LD (LDH)            | U/l    | 771    | 655  | 887  | 58.00 | 116.00 | P->L German methods 37°C                            |
|                     | U/l    | 557    | 473  | 641  | 42.00 | 84.00  | P->L German methods 30°C                            |
|                     | U/l    | 391    | 332  | 450  | 29.50 | 59.00  | P->L German methods 25°C                            |
|                     | U/l    | 725    | 616  | 834  | 54.50 | 109.00 | P->L SFBC 37°C                                      |
|                     | U/l    | 523    | 445  | 601  | 39.00 | 78.00  | P->L SFBC 30°C                                      |
|                     | U/l    | 368    | 312  | 424  | 28.00 | 56.00  | P->L SFBC 25°C                                      |
|                     | U/l    | 378    | 321  | 435  | 28.50 | 57.00  | L->P IFCC 37°C                                      |
|                     | U/l    | 273    | 232  | 314  | 20.50 | 41.00  | L->P IFCC 30°C                                      |
|                     | U/l    | 192    | 163  | 221  | 14.50 | 29.00  | L->P IFCC 25°C                                      |
| Magnesium           | mmol/l | 1.62   | 1.42 | 1.82 | 0.10  | 0.20   | Xylidyl Blue                                        |
|                     | mg/dl  | 3.94   | 3.45 | 4.43 | 0.25  | 0.49   |                                                     |
| Phosphate Inorganic | mmol/l | 2.15   | 1.83 | 2.47 | 0.16  | 0.32   | Phosphomolybdate UV                                 |
|                     | mg/dl  | 6.67   | 5.67 | 7.67 | 0.50  | 1.00   |                                                     |

**MINDRAY BS-200/300/400**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte           | unit   | Target | low  | high | 1SD   | 2SD   | methods                                           |
|-------------------|--------|--------|------|------|-------|-------|---------------------------------------------------|
| Protein Total     | g/l    | 48.0   | 38.4 | 57.6 | 4.80  | 9.60  | Biuret reaction end point                         |
|                   | g/dl   | 4.80   | 3.84 | 5.76 | 0.48  | 0.96  |                                                   |
| Triglycerides     | mmol/l | 2.97   | 2.49 | 3.45 | 0.24  | 0.48  | Lipase/GPO-PAP no correction                      |
|                   | mg/dl  | 263    | 220  | 306  | 21.50 | 43.00 |                                                   |
| Urea              | mmol/l | 19.9   | 16.9 | 22.9 | 1.50  | 3.00  | Urease kinetic                                    |
|                   | mg/dl  | 120    | 102  | 138  | 9.00  | 18.00 |                                                   |
|                   | mmol/l | 19.9   | 16.9 | 22.9 | 1.50  | 3.00  | BUN                                               |
|                   | mg/dl  | 55.9   | 47.5 | 64.3 | 4.20  | 8.40  |                                                   |
| Uric Acid (Urate) | mmol/l | 0.56   | 0.49 | 0.63 | 0.04  | 0.07  | Uricase peroxidase with ascorbate oxidase         |
|                   | mg/dl  | 9.37   | 8.16 | 10.6 | 0.61  | 1.21  |                                                   |
|                   | mmol/l | 0.57   | 0.50 | 0.64 | 0.04  | 0.07  | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 9.56   | 8.32 | 10.8 | 0.62  | 1.24  |                                                   |
|                   | mmol/l | 0.53   | 0.46 | 0.60 | 0.03  | 0.07  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 8.92   | 7.76 | 10.1 | 0.58  | 1.16  |                                                   |



**Ortho VITROS®****ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)**

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte                           | unit   | Target | low  | high | 1SD   | 2SD   | methods                                    |
|-----------------------------------|--------|--------|------|------|-------|-------|--------------------------------------------|
| Albumin                           | g/l    | 29.3   | 24.9 | 33.7 | 2.20  | 4.40  | Ortho Vitros Microslide Systems            |
|                                   | g/dl   | 2.93   | 2.49 | 3.37 | 0.22  | 0.44  |                                            |
| Alkaline Phosphatase              | U/l    | 259    | 220  | 298  | 19.50 | 39.00 | Ortho Vitros Microslide Systems 37°C       |
| ALT (GPT)                         | U/l    | 156    | 125  | 187  | 15.50 | 31.00 | Ortho Vitros Microslide Systems 37°C       |
| Amylase Total                     | U/l    | 187    | 159  | 215  | 14.00 | 28.00 | Ortho Vitros Microslide Systems 37°C       |
| AST (GOT)                         | U/l    | 188    | 151  | 225  | 18.50 | 37.00 | Ortho Vitros Microslide visible slide 37°C |
| Bicarbonate                       | mmol/l | 17.1   | 13.6 | 20.6 | 1.75  | 3.50  | Ortho Vitros Microslide Systems            |
| Bilirubin Total                   | µmol/l | 80.5   | 63.6 | 97.4 | 8.45  | 16.90 | Vitros 250/500/700/950 Total Bilirubin     |
|                                   | mg/dl  | 4.71   | 3.72 | 5.70 | 0.50  | 0.99  |                                            |
| Bilirubin, Unconjugated Vitros BU | µmol/l | 80.5   | 63.6 | 97.4 | 8.45  | 16.90 | BuBc Vitros Slide                          |
|                                   | mg/dl  | 4.71   | 3.72 | 5.70 | 0.50  | 0.99  |                                            |
| Calcium                           | mmol/l | 3.12   | 2.80 | 3.44 | 0.16  | 0.32  | Ortho Vitros Microslide Systems            |
|                                   | mg/dl  | 12.5   | 11.2 | 13.8 | 0.65  | 1.30  |                                            |
| Chloride                          | mmol/l | 121    | 111  | 131  | 5.00  | 10.00 | Ortho Vitros Microslide Systems            |
| Cholesterol                       | mmol/l | 6.74   | 5.86 | 7.62 | 0.44  | 0.88  | Ortho Vitros Microslide Systems            |
|                                   | mg/dl  | 260    | 226  | 294  | 17.00 | 34.00 |                                            |
| CK Total                          | U/l    | 420    | 345  | 495  | 37.50 | 75.00 | Ortho Vitros Microslide Systems 37°C       |
| Creatinine                        | µmol/l | 391    | 313  | 469  | 39.00 | 78.00 | Vitros IDMS Traceable                      |
|                                   | mg/dl  | 4.42   | 3.54 | 5.30 | 0.44  | 0.88  |                                            |
| gamma-GT                          | U/l    | 205    | 174  | 236  | 15.50 | 31.00 | Ortho Vitros Microslide Systems 37°C       |
| Glucose                           | mmol/l | 14.4   | 12.2 | 16.6 | 1.10  | 2.20  | Ortho Vitros Microslide Systems            |
|                                   | mg/dl  | 259    | 220  | 298  | 19.50 | 39.00 |                                            |

## Ortho VITROS®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD    | methods                                                |
|---------------------|--------|--------|------|------|-------|--------|--------------------------------------------------------|
| HDL - Cholesterol   | mmol/l | 2.47   | 2.10 | 2.84 | 0.19  | 0.37   | Vitros Magnetic HDL                                    |
|                     | mg/dl  | 95.3   | 81.1 | 110  | 7.10  | 14.20  |                                                        |
|                     | mmol/l | 2.41   | 2.05 | 2.77 | 0.18  | 0.36   | Vitros dHDL PTA/MgCl <sub>2</sub> direct precipitation |
|                     | mg/dl  | 93.0   | 79.1 | 107  | 6.95  | 13.90  |                                                        |
| Iron                | µmol/l | 38.8   | 31.8 | 45.8 | 3.50  | 7.00   | Ortho Vitros Microslide Systems                        |
|                     | µg/dl  | 217    | 178  | 256  | 19.50 | 39.00  |                                                        |
| Lactate             | mmol/l | 5.12   | 4.20 | 6.04 | 0.46  | 0.92   | Ortho Vitros Microslide Systems                        |
|                     | mg/dl  | 46.1   | 37.8 | 54.4 | 4.15  | 8.30   |                                                        |
| Lipase              | U/l    | 704    | 564  | 844  | 70.00 | 140.00 | Ortho Vitros Microslide Systems 37°C                   |
| Magnesium           | mmol/l | 1.85   | 1.63 | 2.07 | 0.11  | 0.22   | Ortho Vitros Microslide Systems                        |
|                     | mg/dl  | 4.50   | 3.96 | 5.04 | 0.27  | 0.54   |                                                        |
| Phosphate Inorganic | mmol/l | 2.24   | 1.90 | 2.58 | 0.17  | 0.34   | Ortho Vitros Microslide Systems                        |
|                     | mg/dl  | 6.94   | 5.89 | 7.99 | 0.53  | 1.05   |                                                        |
| Potassium           | mmol/l | 6.32   | 5.82 | 6.82 | 0.25  | 0.50   | Ortho Vitros Microslide Systems                        |
| Protein Total       | g/l    | 47.3   | 37.8 | 56.8 | 4.75  | 9.50   | Ortho Vitros Microslide Systems                        |
|                     | g/dl   | 4.73   | 3.78 | 5.68 | 0.48  | 0.95   |                                                        |
| Sodium              | mmol/l | 156    | 148  | 164  | 4.00  | 8.00   | Ortho Vitros Microslide Systems                        |
| Triglycerides       | mmol/l | 3.22   | 2.70 | 3.74 | 0.26  | 0.52   | Ortho Vitros Microslide Systems                        |
|                     | mg/dl  | 285    | 239  | 331  | 23.00 | 46.00  |                                                        |
| Urea                | mmol/l | 17.9   | 15.3 | 20.5 | 1.30  | 2.60   | Ortho Vitros Microslide Systems                        |
|                     | mg/dl  | 108    | 92.0 | 124  | 8.00  | 16.00  |                                                        |
|                     | mmol/l | 17.9   | 15.2 | 20.6 | 1.35  | 2.70   | BUN                                                    |
|                     | mg/dl  | 50.2   | 42.7 | 57.7 | 3.75  | 7.50   |                                                        |
| Uric Acid (Urate)   | mmol/l | 0.52   | 0.45 | 0.59 | 0.03  | 0.07   | Ortho Vitros Microslide Systems                        |
|                     | mg/dl  | 8.77   | 7.63 | 9.91 | 0.57  | 1.14   |                                                        |

## PRESTIGE 24i

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte       | unit   | Target | low  | high | 1SD   | 2SD   | methods                              |
|---------------|--------|--------|------|------|-------|-------|--------------------------------------|
| Albumin       | g/l    | 29.5   | 25.1 | 33.9 | 2.20  | 4.40  | Bromocresol Green                    |
|               | g/dl   | 2.95   | 2.51 | 3.39 | 0.22  | 0.44  |                                      |
| AST (GOT)     | U/l    | 144    | 115  | 173  | 14.50 | 29.00 | Tris buffer without P5P 37°C         |
|               | U/l    | 97     | 78   | 116  | 9.50  | 19.00 | Tris buffer without P5P 30°C         |
|               | U/l    | 69     | 55   | 83   | 7.00  | 14.00 | Tris buffer without P5P 25°C         |
| Calcium       | mmol/l | 3.03   | 2.73 | 3.33 | 0.15  | 0.30  | Arsenazo III                         |
|               | mg/dl  | 12.1   | 10.9 | 13.3 | 0.60  | 1.20  |                                      |
| Cholesterol   | mmol/l | 7.20   | 6.27 | 8.13 | 0.47  | 0.93  | Cholesterol Oxidase                  |
|               | mg/dl  | 278    | 242  | 314  | 18.00 | 36.00 |                                      |
| CK Total      | U/l    | 527    | 432  | 622  | 47.50 | 95.00 | CK-NAC (IFCC) 37°C                   |
|               | U/l    | 330    | 270  | 390  | 30.00 | 60.00 | CK-NAC (IFCC) 30°C                   |
|               | U/l    | 224    | 184  | 264  | 20.00 | 40.00 | CK-NAC (IFCC) 25°C                   |
| Creatinine    | μmol/l | 355    | 284  | 426  | 35.50 | 71.00 | Alkaline picrate no deproteinization |
|               | mg/dl  | 4.01   | 3.21 | 4.81 | 0.40  | 0.80  |                                      |
| Glucose       | mmol/l | 15.3   | 13.0 | 17.6 | 1.15  | 2.30  | Glucose oxidase                      |
|               | mg/dl  | 276    | 234  | 318  | 21.00 | 42.00 |                                      |
| Protein Total | g/l    | 45.4   | 36.3 | 54.5 | 4.55  | 9.10  | Biuret reaction end point            |
|               | g/dl   | 4.54   | 3.63 | 5.45 | 0.46  | 0.91  |                                      |
| Triglycerides | mmol/l | 2.81   | 2.36 | 3.26 | 0.23  | 0.45  | Lipase/GPO-PAP no correction         |
|               | mg/dl  | 249    | 209  | 289  | 20.00 | 40.00 |                                      |
| Urea          | mmol/l | 19.5   | 16.6 | 22.4 | 1.45  | 2.90  | Urease kinetic                       |
|               | mg/dl  | 117    | 99.8 | 134  | 8.60  | 17.20 |                                      |

**PRESTIGE 24i**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte           | unit   | Target | low  | high | 1SD  | 2SD  | methods                                   |
|-------------------|--------|--------|------|------|------|------|-------------------------------------------|
| Urea              | mmol/l | 19.5   | 16.6 | 22.4 | 1.45 | 2.90 | BUN                                       |
|                   | mg/dl  | 54.7   | 46.5 | 62.9 | 4.10 | 8.20 |                                           |
| Uric Acid (Urate) | mmol/l | 0.54   | 0.47 | 0.60 | 0.03 | 0.07 | Uricase peroxidase with ascorbate oxidase |
|                   | mg/dl  | 8.99   | 7.83 | 10.2 | 0.58 | 1.16 |                                           |

## Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

| Analyte              | unit   | Target | Range |      | 1SD   | 2SD   | methods                           |
|----------------------|--------|--------|-------|------|-------|-------|-----------------------------------|
|                      |        |        | low   | high |       |       |                                   |
| Albumin              | g/l    | 32.5   | 27.6  | 37.4 | 2.45  | 4.90  | Bromocresol Green                 |
|                      | g/dl   | 3.25   | 2.76  | 3.74 | 0.25  | 0.49  |                                   |
|                      | g/l    | 29.6   | 25.2  | 34.0 | 2.20  | 4.40  | Bromocresol Purple                |
|                      | g/dl   | 2.96   | 2.52  | 3.40 | 0.22  | 0.44  |                                   |
|                      | g/l    | 28.2   | 23.9  | 32.5 | 2.15  | 4.30  | Turbidimetric Assays              |
|                      | g/dl   | 2.82   | 2.39  | 3.25 | 0.22  | 0.43  |                                   |
| Alkaline Phosphatase | U/l    | 283    | 241   | 325  | 21.00 | 42.00 | Roche Integra AMP buffer 37°C     |
|                      | U/l    | 220    | 188   | 252  | 16.00 | 32.00 | Roche Integra AMP buffer 30°C     |
|                      | U/l    | 181    | 154   | 208  | 13.50 | 27.00 | Roche Integra AMP buffer 25°C     |
| ALT (GPT)            | U/l    | 138    | 111   | 165  | 13.50 | 27.00 | Tris buffer without P5P 37°C      |
|                      | U/l    | 102    | 82    | 122  | 10.00 | 20.00 | Tris buffer without P5P 30°C      |
|                      | U/l    | 78     | 62    | 94   | 8.00  | 16.00 | Tris buffer without P5P 25°C      |
| Amylase Pancreatic   | U/l    | 254    | 216   | 292  | 19.00 | 38.00 | Roche EPS Liquid 37°C             |
| Amylase Total        | U/l    | 274    | 233   | 315  | 20.50 | 41.00 | BM/Roche Colorimetric pNPG7 37°C  |
|                      | U/l    | 274    | 233   | 315  | 20.50 | 41.00 | Roche Integra 2-chloro-pNPG7 37°C |
|                      | U/l    | 275    | 233   | 317  | 21.00 | 42.00 | Roche liquid stable pNPG7 37°C    |
| AST (GOT)            | U/l    | 142    | 114   | 170  | 14.00 | 28.00 | Tris buffer without P5P 37°C      |
|                      | U/l    | 96     | 77    | 115  | 9.50  | 19.00 | Tris buffer without P5P 30°C      |
|                      | U/l    | 68     | 54    | 82   | 7.00  | 14.00 | Tris buffer without P5P 25°C      |
| Bicarbonate          | mmol/l | 14.6   | 11.6  | 17.6 | 1.50  | 3.00  | Colorimetric                      |
|                      | mmol/l | 14.7   | 11.7  | 17.7 | 1.50  | 3.00  | Enzymatic                         |

## Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

| Analyte          | unit   | Target | Range |      | 1SD    | 2SD     | methods                              |
|------------------|--------|--------|-------|------|--------|---------|--------------------------------------|
|                  |        |        | low   | high |        |         |                                      |
| Bile Acids       | µmol/l | 46.9   | 37.6  | 56.2 | 4.65   | 9.30    | Enzymatic Colorimetric               |
| Bilirubin Direct | µmol/l | 29.2   | 23.0  | 35.4 | 3.10   | 6.20    | Dichlorophenyl Diazonium (DPD)       |
|                  | mg/dl  | 1.71   | 1.35  | 2.07 | 0.18   | 0.36    |                                      |
|                  | µmol/l | 28.8   | 22.8  | 34.8 | 3.00   | 6.00    | Diazo with Sulphanilic Acid          |
|                  | mg/dl  | 1.68   | 1.33  | 2.03 | 0.18   | 0.35    |                                      |
|                  | µmol/l | 29.2   | 23.1  | 35.3 | 3.05   | 6.10    | Roche JG factored                    |
|                  | mg/dl  | 1.71   | 1.35  | 2.07 | 0.18   | 0.36    |                                      |
| Bilirubin Total  | µmol/l | 82.4   | 65.1  | 99.7 | 8.65   | 17.30   | Diazo with Sulphanilic Acid          |
|                  | mg/dl  | 4.82   | 3.81  | 5.83 | 0.51   | 1.01    |                                      |
|                  | µmol/l | 82.6   | 65.3  | 99.9 | 8.65   | 17.30   | Dichlorophenyl Diazonium (DPD)       |
|                  | mg/dl  | 4.83   | 3.82  | 5.84 | 0.51   | 1.01    |                                      |
|                  | µmol/l | 82.2   | 65.0  | 99.4 | 8.60   | 17.20   | Diazonium ion                        |
|                  | mg/dl  | 4.81   | 3.80  | 5.82 | 0.51   | 1.01    |                                      |
| Calcium          | mmol/l | 3.11   | 2.80  | 3.42 | 0.16   | 0.31    | Cresolphthalein complexone           |
|                  | mg/dl  | 12.5   | 11.2  | 13.8 | 0.65   | 1.30    |                                      |
|                  | mmol/l | 3.10   | 2.79  | 3.41 | 0.16   | 0.31    | NM-BAPTA                             |
|                  | mg/dl  | 12.4   | 11.2  | 13.6 | 0.60   | 1.20    |                                      |
| Chloride         | mmol/l | 117    | 108   | 126  | 4.50   | 9.00    | ISE indirect                         |
| Cholesterol      | mmol/l | 6.91   | 6.01  | 7.81 | 0.45   | 0.90    | Cholesterol Oxidase                  |
|                  | mg/dl  | 267    | 232   | 302  | 17.50  | 35.00   |                                      |
| Cholinesterase   | U/l    | 5035   | 4028  | 6042 | 503.50 | 1007.00 | Colorimetric Butyrylthiocholine 37°C |
| CK Total         | U/l    | 486    | 399   | 573  | 43.50  | 87.00   | CK-NAC substrate start (DGKC) 37°C   |
|                  | U/l    | 304    | 250   | 358  | 27.00  | 54.00   | CK-NAC substrate start (DGKC) 30°C   |
|                  | U/l    | 207    | 170   | 244  | 18.50  | 37.00   | CK-NAC substrate start (DGKC) 25°C   |
|                  | U/l    | 482    | 395   | 569  | 43.50  | 87.00   | CK-NAC (IFCC) 37°C                   |
|                  | U/l    | 302    | 247   | 357  | 27.50  | 55.00   | CK-NAC (IFCC) 30°C                   |
|                  | U/l    | 205    | 168   | 242  | 18.50  | 37.00   | CK-NAC (IFCC) 25°C                   |

## Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD   | methods                                             |
|---------------------|--------|--------|------|------|-------|-------|-----------------------------------------------------|
| Creatinine          | µmol/l | 393    | 315  | 471  | 39.00 | 78.00 | Alkaline picrate no deproteinization                |
|                     | mg/dl  | 4.44   | 3.56 | 5.32 | 0.44  | 0.88  |                                                     |
|                     | µmol/l | 388    | 311  | 465  | 38.50 | 77.00 | Enzymatic UV method                                 |
|                     | mg/dl  | 4.38   | 3.51 | 5.25 | 0.44  | 0.87  |                                                     |
|                     | µmol/l | 393    | 314  | 472  | 39.50 | 79.00 | Roche Creatinine Plus                               |
|                     | mg/dl  | 4.44   | 3.55 | 5.33 | 0.45  | 0.89  |                                                     |
|                     | µmol/l | 396    | 317  | 475  | 39.50 | 79.00 | Jaffe rate blanked                                  |
|                     | mg/dl  | 4.47   | 3.58 | 5.36 | 0.45  | 0.89  |                                                     |
|                     | µmol/l | 387    | 309  | 465  | 39.00 | 78.00 | Jaffe rate blanked comp. (-26 µmol/l)               |
|                     | mg/dl  | 4.37   | 3.49 | 5.25 | 0.44  | 0.88  |                                                     |
|                     | µmol/l | 394    | 315  | 473  | 39.50 | 79.00 | Jaffe rate blanked compensated (-18 µmol/l)         |
|                     | mg/dl  | 4.45   | 3.56 | 5.34 | 0.45  | 0.89  |                                                     |
| D-3-Hydroxybutyrate | mmol/l | 1.22   | 1.04 | 1.40 | 0.09  | 0.18  | Tris buffer 100mmol pH 8.5                          |
| Free T4             | pmol/l | 93.8   | 70.4 | 117  | 11.70 | 23.40 | Roche Cobas 6000/8000                               |
|                     | ng/dl  | 7.32   | 5.49 | 9.15 | 0.92  | 1.83  |                                                     |
|                     | pg/ml  | 73.2   | 54.9 | 91.5 | 9.15  | 18.30 | Roche Cobas 6000/8000                               |
| gamma-GT            | U/l    | 154    | 131  | 177  | 11.50 | 23.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C       |
|                     | U/l    | 121    | 103  | 139  | 9.00  | 18.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C       |
|                     | U/l    | 95     | 81   | 109  | 7.00  | 14.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C       |
|                     | U/l    | 177    | 151  | 203  | 13.00 | 26.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                     | U/l    | 139    | 119  | 159  | 10.00 | 20.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                     | U/l    | 109    | 93   | 125  | 8.00  | 16.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| GLDH                | U/l    | 35     | 28   | 42   | 3.50  | 7.00  | Triethanolamine buffer 50 mmol 37°C                 |
|                     | U/l    | 27     | 22   | 32   | 2.50  | 5.00  | Triethanolamine buffer 50 mmol 30°C                 |
|                     | U/l    | 22     | 17   | 27   | 2.50  | 5.00  | Triethanolamine buffer 50 mmol 25°C                 |

## Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

| Analyte           | unit   | Target | Range |      | 1SD   | 2SD    | methods                         |
|-------------------|--------|--------|-------|------|-------|--------|---------------------------------|
|                   |        |        | low   | high |       |        |                                 |
| Glucose           | mmol/l | 15.4   | 13.1  | 17.7 | 1.15  | 2.30   | Glucose dehydrogenase           |
|                   | mg/dl  | 278    | 236   | 320  | 21.00 | 42.00  |                                 |
|                   | mmol/l | 15.5   | 13.2  | 17.8 | 1.15  | 2.30   | Hexokinase                      |
|                   | mg/dl  | 279    | 238   | 320  | 20.50 | 41.00  |                                 |
| HDL - Cholesterol | mmol/l | 3.45   | 2.93  | 3.97 | 0.26  | 0.52   | Direct HDL PEGME                |
|                   | mg/dl  | 133    | 113   | 153  | 10.00 | 20.00  |                                 |
|                   | mmol/l | 3.43   | 2.92  | 3.94 | 0.26  | 0.51   | Direct HDL Roche 3rd generation |
|                   | mg/dl  | 132    | 113   | 151  | 9.50  | 19.00  |                                 |
| Iron              | mmol/l | 3.52   | 2.99  | 4.05 | 0.27  | 0.53   | Direct HDL Roche 4th Generation |
|                   | mg/dl  | 136    | 115   | 157  | 10.50 | 21.00  |                                 |
|                   | µmol/l | 38.7   | 31.8  | 45.6 | 3.45  | 6.90   | Colorimetric with ppt.          |
|                   | µg/dl  | 216    | 178   | 254  | 19.00 | 38.00  |                                 |
| Lactate           | µmol/l | 39.2   | 32.2  | 46.2 | 3.50  | 7.00   | Colorimetric without ppt.       |
|                   | µg/dl  | 219    | 180   | 258  | 19.50 | 39.00  |                                 |
|                   | mmol/l | 5.46   | 4.47  | 6.45 | 0.50  | 0.99   | Colorimetric Lactate Oxidase    |
|                   | mg/dl  | 49.2   | 40.3  | 58.1 | 4.45  | 8.90   |                                 |
| LD (LDH)          | U/l    | 356    | 302   | 410  | 27.00 | 54.00  | L->P 37°C                       |
|                   | U/l    | 257    | 218   | 296  | 19.50 | 39.00  | L->P 30°C                       |
|                   | U/l    | 180    | 153   | 207  | 13.50 | 27.00  | L->P 25°C                       |
|                   | U/l    | 692    | 588   | 796  | 52.00 | 104.00 | P->L German methods 37°C        |
|                   | U/l    | 500    | 425   | 575  | 37.50 | 75.00  | P->L German methods 30°C        |
|                   | U/l    | 351    | 298   | 404  | 26.50 | 53.00  | P->L German methods 25°C        |
|                   | U/l    | 371    | 315   | 427  | 28.00 | 56.00  | L->P IFCC 37°C                  |
|                   | U/l    | 268    | 227   | 309  | 20.50 | 41.00  | L->P IFCC 30°C                  |
|                   | U/l    | 188    | 160   | 216  | 14.00 | 28.00  | L->P IFCC 25°C                  |



## Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

| Analyte                     | unit    | Target | Range |      | 1SD   | 2SD   | methods                       |
|-----------------------------|---------|--------|-------|------|-------|-------|-------------------------------|
|                             |         |        | low   | high |       |       |                               |
| Lipase                      | U/l     | 52     | 41    | 63   | 5.50  | 11.00 | Roche Colorimetric 37°C       |
| Lithium                     | mmol/l  | 2.11   | 1.86  | 2.36 | 0.13  | 0.25  | Spectrophotometric            |
|                             | mg/dl   | 1.47   | 1.29  | 1.65 | 0.09  | 0.18  |                               |
| Magnesium                   | mmol/l  | 1.79   | 1.57  | 2.01 | 0.11  | 0.22  | Xylidyl Blue                  |
|                             | mg/dl   | 4.35   | 3.82  | 4.88 | 0.27  | 0.53  |                               |
|                             | mmol/l  | 1.78   | 1.57  | 1.99 | 0.11  | 0.21  | Chlorphosphonazo III          |
|                             | mg/dl   | 4.33   | 3.82  | 4.84 | 0.26  | 0.51  |                               |
| Osmolality                  | mOsm/kg | 351    | 281   | 421  | 35.00 | 70.00 | Calculated                    |
| Phosphate Inorganic         | mmol/l  | 2.24   | 1.90  | 2.58 | 0.17  | 0.34  | Phosphomolybdate enzymatic    |
|                             | mg/dl   | 6.94   | 5.89  | 7.99 | 0.53  | 1.05  |                               |
|                             | mmol/l  | 2.23   | 1.89  | 2.57 | 0.17  | 0.34  | Phosphomolybdate UV           |
|                             | mg/dl   | 6.91   | 5.86  | 7.96 | 0.53  | 1.05  |                               |
| Potassium                   | mmol/l  | 6.44   | 5.92  | 6.96 | 0.26  | 0.52  | ISE method - indirect         |
| Protein Total               | g/l     | 46.2   | 36.9  | 55.5 | 4.65  | 9.30  | Biuret reaction end point     |
|                             | g/dl    | 4.62   | 3.69  | 5.55 | 0.47  | 0.93  |                               |
|                             | g/l     | 46.1   | 36.9  | 55.3 | 4.60  | 9.20  | Biuret reaction kinetic       |
|                             | g/dl    | 4.61   | 3.69  | 5.53 | 0.46  | 0.92  |                               |
| PSA Total                   | ng/ml = | 33.7   | 25.2  | 42.2 | 4.25  | 8.50  | Roche Cobas 6000/8000         |
| Sodium                      | mmol/l  | 160    | 152   | 168  | 4.00  | 8.00  | ISE method - indirect         |
| Thyroid Stimulating Hormone | µU/ml = | 1.18   | 0.94  | 1.42 | 0.12  | 0.24  | Roche Cobas 6000/8000         |
| TIBC                        | µmol/l  | 41.1   | 32.5  | 49.7 | 4.30  | 8.60  | FE+UIBC(saturation with iron) |
|                             | µg/dl   | 230    | 182   | 278  | 24.00 | 48.00 |                               |
|                             | µmol/l  | 43.5   | 34.4  | 52.6 | 4.55  | 9.10  | Calculated from Transferrin   |
|                             | µg/dl   | 243    | 192   | 294  | 25.50 | 51.00 |                               |

## Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte           | unit   | Target | low  | high | 1SD   | 2SD   | methods                                           |
|-------------------|--------|--------|------|------|-------|-------|---------------------------------------------------|
| Total T3          | nmol/l | 3.92   | 2.94 | 4.90 | 0.49  | 0.98  | Roche Cobas 6000/8000                             |
|                   | ng/ml  | 2.55   | 1.91 | 3.19 | 0.32  | 0.64  |                                                   |
|                   | ng/dl  | 255    | 191  | 319  | 32.00 | 64.00 | Roche Cobas 6000/8000                             |
| Total T4          | nmol/l | 201    | 151  | 251  | 25.00 | 50.00 | Roche Cobas 6000/8000                             |
|                   | µg/dl  | 15.7   | 11.8 | 19.6 | 1.95  | 3.90  |                                                   |
|                   | ng/ml  | 157    | 118  | 196  | 19.50 | 39.00 | Roche Cobas 6000/8000                             |
| Triglycerides     | mmol/l | 2.93   | 2.46 | 3.40 | 0.24  | 0.47  | Lipase/GPO-PAP no correction                      |
|                   | mg/dl  | 259    | 218  | 300  | 20.50 | 41.00 |                                                   |
|                   | mmol/l | 2.97   | 2.49 | 3.45 | 0.24  | 0.48  | L/G Kinase EP. no correction                      |
|                   | mg/dl  | 263    | 220  | 306  | 21.50 | 43.00 |                                                   |
| Urea              | mmol/l | 19.3   | 16.4 | 22.2 | 1.45  | 2.90  | Urease end point                                  |
|                   | mg/dl  | 116    | 98.6 | 133  | 8.70  | 17.40 |                                                   |
|                   | mmol/l | 19.3   | 16.4 | 22.2 | 1.45  | 2.90  | Urease kinetic                                    |
|                   | mg/dl  | 116    | 98.6 | 133  | 8.70  | 17.40 |                                                   |
|                   | mmol/l | 19.3   | 16.4 | 22.2 | 1.45  | 2.90  | BUN                                               |
| mg/dl             | 54.2   | 46.1   | 62.3 | 4.05 | 8.10  |       |                                                   |
| Uric Acid (Urate) | mmol/l | 0.54   | 0.47 | 0.61 | 0.04  | 0.07  | Uricase peroxidase with ascorbate oxidase         |
|                   | mg/dl  | 9.09   | 7.90 | 10.3 | 0.60  | 1.19  |                                                   |
|                   | mmol/l | 0.54   | 0.47 | 0.61 | 0.04  | 0.07  | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 9.02   | 7.85 | 10.2 | 0.59  | 1.17  |                                                   |
|                   | mmol/l | 0.54   | 0.47 | 0.61 | 0.04  | 0.07  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 9.06   | 7.88 | 10.2 | 0.59  | 1.18  |                                                   |

## Roche Cobas C111®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte              | unit   | Target | low  | high | 1SD   | 2SD   | methods                        |
|----------------------|--------|--------|------|------|-------|-------|--------------------------------|
| Albumin              | g/l    | 31.8   | 27.0 | 36.6 | 2.40  | 4.80  | Bromocresol Green              |
|                      | g/dl   | 3.18   | 2.70 | 3.66 | 0.24  | 0.48  |                                |
| Alkaline Phosphatase | U/l    | 292    | 248  | 336  | 22.00 | 44.00 | Roche Integra AMP buffer 37°C  |
|                      | U/l    | 227    | 193  | 261  | 17.00 | 34.00 | Roche Integra AMP buffer 30°C  |
|                      | U/l    | 187    | 158  | 216  | 14.50 | 29.00 | Roche Integra AMP buffer 25°C  |
| ALT (GPT)            | U/l    | 136    | 109  | 163  | 13.50 | 27.00 | Tris buffer without P5P 37°C   |
|                      | U/l    | 101    | 81   | 121  | 10.00 | 20.00 | Tris buffer without P5P 30°C   |
|                      | U/l    | 77     | 61   | 93   | 8.00  | 16.00 | Tris buffer without P5P 25°C   |
| Amylase Total        | U/l    | 285    | 243  | 327  | 21.00 | 42.00 | Roche liquid stable pNPG7 37°C |
| AST (GOT)            | U/l    | 139    | 111  | 167  | 14.00 | 28.00 | Tris buffer without P5P 37°C   |
|                      | U/l    | 94     | 75   | 113  | 9.50  | 19.00 | Tris buffer without P5P 30°C   |
|                      | U/l    | 66     | 53   | 79   | 6.50  | 13.00 | Tris buffer without P5P 25°C   |
| Bicarbonate          | mmol/l | 14.9   | 11.8 | 18.0 | 1.55  | 3.10  | Enzymatic                      |
| Bilirubin Direct     | µmol/l | 30.4   | 24.0 | 36.8 | 3.20  | 6.40  | Dichlorophenyl Diazonium (DPD) |
|                      | mg/dl  | 1.78   | 1.40 | 2.16 | 0.19  | 0.38  |                                |
| Bilirubin Total      | µmol/l | 77.4   | 61.1 | 93.7 | 8.15  | 16.30 | Diazo with Sulphanilic Acid    |
|                      | mg/dl  | 4.53   | 3.57 | 5.49 | 0.48  | 0.96  |                                |
|                      | µmol/l | 80.4   | 63.5 | 97.3 | 8.45  | 16.90 | Dichlorophenyl Diazonium (DPD) |
|                      | mg/dl  | 4.70   | 3.71 | 5.69 | 0.50  | 0.99  |                                |
|                      | µmol/l | 78.8   | 62.3 | 95.3 | 8.25  | 16.50 | Diazonium ion                  |
| mg/dl                | 4.61   | 3.64   | 5.58 | 0.49 | 0.97  |       |                                |

## Roche Cobas C111®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

| Analyte           | unit   | Target | Range |      | 1SD   | 2SD   | methods                                             |
|-------------------|--------|--------|-------|------|-------|-------|-----------------------------------------------------|
|                   |        |        | low   | high |       |       |                                                     |
| Calcium           | mmol/l | 3.05   | 2.75  | 3.35 | 0.15  | 0.30  | Cresolphthalein complexone                          |
|                   | mg/dl  | 12.2   | 11.0  | 13.4 | 0.60  | 1.20  |                                                     |
|                   | mmol/l | 3.10   | 2.79  | 3.41 | 0.16  | 0.31  | NM-BAPTA                                            |
|                   | mg/dl  | 12.4   | 11.2  | 13.6 | 0.60  | 1.20  |                                                     |
| Chloride          | mmol/l | 122    | 113   | 131  | 4.50  | 9.00  | ISE indirect                                        |
| Cholesterol       | mmol/l | 6.99   | 6.08  | 7.90 | 0.46  | 0.91  | Cholesterol Oxidase                                 |
|                   | mg/dl  | 270    | 235   | 305  | 17.50 | 35.00 |                                                     |
| CK Total          | U/l    | 481    | 394   | 568  | 43.50 | 87.00 | CK-NAC (IFCC) 37°C                                  |
|                   | U/l    | 301    | 247   | 355  | 27.00 | 54.00 | CK-NAC (IFCC) 30°C                                  |
|                   | U/l    | 204    | 167   | 241  | 18.50 | 37.00 | CK-NAC (IFCC) 25°C                                  |
| Creatinine        | µmol/l | 377    | 301   | 453  | 38.00 | 76.00 | Alkaline picrate no deproteinization                |
|                   | mg/dl  | 4.26   | 3.40  | 5.12 | 0.43  | 0.86  |                                                     |
|                   | µmol/l | 378    | 302   | 454  | 38.00 | 76.00 | Roche Creatinine Plus                               |
|                   | mg/dl  | 4.27   | 3.41  | 5.13 | 0.43  | 0.86  |                                                     |
|                   | µmol/l | 374    | 300   | 448  | 37.00 | 74.00 | Jaffe rate blanked compensated (-18 µmol/l)         |
|                   | mg/dl  | 4.23   | 3.39  | 5.07 | 0.42  | 0.84  |                                                     |
| gamma-GT          | U/l    | 167    | 142   | 192  | 12.50 | 25.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                   | U/l    | 132    | 112   | 152  | 10.00 | 20.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                   | U/l    | 103    | 88    | 118  | 7.50  | 15.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose           | mmol/l | 15.9   | 13.5  | 18.3 | 1.20  | 2.40  | Hexokinase                                          |
|                   | mg/dl  | 287    | 243   | 331  | 22.00 | 44.00 |                                                     |
| HDL - Cholesterol | mmol/l | 3.55   | 3.02  | 4.08 | 0.27  | 0.53  | Direct HDL Roche 3rd generation                     |
|                   | mg/dl  | 137    | 117   | 157  | 10.00 | 20.00 |                                                     |
|                   | mmol/l | 3.58   | 3.05  | 4.11 | 0.27  | 0.53  | Direct HDL Roche 4th Generation                     |
|                   | mg/dl  | 138    | 118   | 158  | 10.00 | 20.00 |                                                     |

## Roche Cobas C111®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD   | methods                                   |
|---------------------|--------|--------|------|------|-------|-------|-------------------------------------------|
| LD (LDH)            | U/l    | 381    | 324  | 438  | 28.50 | 57.00 | L->P IFCC 37°C                            |
|                     | U/l    | 275    | 234  | 316  | 20.50 | 41.00 | L->P IFCC 30°C                            |
|                     | U/l    | 193    | 164  | 222  | 14.50 | 29.00 | L->P IFCC 25°C                            |
| Magnesium           | mmol/l | 1.80   | 1.59 | 2.01 | 0.11  | 0.21  | Chlorphosphonazo III                      |
|                     | mg/dl  | 4.37   | 3.86 | 4.88 | 0.26  | 0.51  |                                           |
| Phosphate Inorganic | mmol/l | 2.27   | 1.93 | 2.61 | 0.17  | 0.34  | Phosphomolybdate enzymatic                |
|                     | mg/dl  | 7.04   | 5.98 | 8.10 | 0.53  | 1.06  |                                           |
|                     | mmol/l | 2.30   | 1.96 | 2.64 | 0.17  | 0.34  | Phosphomolybdate UV                       |
|                     | mg/dl  | 7.13   | 6.08 | 8.18 | 0.53  | 1.05  |                                           |
| Potassium           | mmol/l | 6.42   | 5.91 | 6.93 | 0.26  | 0.51  | ISE method - indirect                     |
| Protein Total       | g/l    | 48.4   | 38.7 | 58.1 | 4.85  | 9.70  | Biuret reaction end point                 |
|                     | g/dl   | 4.84   | 3.87 | 5.81 | 0.49  | 0.97  |                                           |
| Sodium              | mmol/l | 158    | 151  | 165  | 3.50  | 7.00  | ISE method - indirect                     |
| Triglycerides       | mmol/l | 2.98   | 2.50 | 3.46 | 0.24  | 0.48  | Lipase/GPO-PAP no correction              |
|                     | mg/dl  | 264    | 221  | 307  | 21.50 | 43.00 |                                           |
|                     | mmol/l | 2.98   | 2.50 | 3.46 | 0.24  | 0.48  | Lipase/GPO-PAP 0.11mmol/l correction      |
|                     | mg/dl  | 264    | 221  | 307  | 21.50 | 43.00 |                                           |
| Urea                | mmol/l | 19.1   | 16.3 | 21.9 | 1.40  | 2.80  | Urease kinetic                            |
|                     | mg/dl  | 115    | 98.0 | 132  | 8.50  | 17.00 |                                           |
|                     | mmol/l | 19.1   | 16.2 | 22.0 | 1.45  | 2.90  | BUN                                       |
|                     | mg/dl  | 53.6   | 45.6 | 61.6 | 4.00  | 8.00  |                                           |
| Uric Acid (Urate)   | mmol/l | 0.55   | 0.48 | 0.62 | 0.04  | 0.07  | Uricase peroxidase with ascorbate oxidase |
|                     | mg/dl  | 9.16   | 7.98 | 10.3 | 0.59  | 1.18  |                                           |
|                     | mmol/l | 0.54   | 0.47 | 0.61 | 0.04  | 0.07  | Uricase peroxidase no ascorbate oxidase   |
|                     | mg/dl  | 9.12   | 7.93 | 10.3 | 0.60  | 1.19  |                                           |

**Roche Cobas C111®**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte           | unit   | Target | low  | high | 1SD  | 2SD  | methods                                           |
|-------------------|--------|--------|------|------|------|------|---------------------------------------------------|
| Uric Acid (Urate) | mmol/l | 0.55   | 0.47 | 0.62 | 0.04 | 0.07 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 9.16   | 7.96 | 10.4 | 0.60 | 1.20 |                                                   |

## Roche Cobas C311®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte              | unit   | Target | low  | high | 1SD   | 2SD   | methods                        |
|----------------------|--------|--------|------|------|-------|-------|--------------------------------|
| Albumin              | g/l    | 32.2   | 27.3 | 37.1 | 2.45  | 4.90  | Bromocresol Green              |
|                      | g/dl   | 3.22   | 2.73 | 3.71 | 0.25  | 0.49  |                                |
|                      | g/l    | 29.8   | 25.3 | 34.3 | 2.25  | 4.50  | Bromocresol Purple             |
|                      | g/dl   | 2.98   | 2.53 | 3.43 | 0.23  | 0.45  |                                |
| Alkaline Phosphatase | U/l    | 283    | 240  | 326  | 21.50 | 43.00 | Roche Integra AMP buffer 37°C  |
|                      | U/l    | 220    | 187  | 253  | 16.50 | 33.00 | Roche Integra AMP buffer 30°C  |
|                      | U/l    | 181    | 153  | 209  | 14.00 | 28.00 | Roche Integra AMP buffer 25°C  |
| ALT (GPT)            | U/l    | 138    | 110  | 166  | 14.00 | 28.00 | Tris buffer without P5P 37°C   |
|                      | U/l    | 102    | 81   | 123  | 10.50 | 21.00 | Tris buffer without P5P 30°C   |
|                      | U/l    | 78     | 62   | 94   | 8.00  | 16.00 | Tris buffer without P5P 25°C   |
| Amylase Total        | U/l    | 278    | 236  | 320  | 21.00 | 42.00 | Roche liquid stable pNPG7 37°C |
| AST (GOT)            | U/l    | 142    | 114  | 170  | 14.00 | 28.00 | Tris buffer without P5P 37°C   |
|                      | U/l    | 96     | 77   | 115  | 9.50  | 19.00 | Tris buffer without P5P 30°C   |
|                      | U/l    | 68     | 54   | 82   | 7.00  | 14.00 | Tris buffer without P5P 25°C   |
| Bicarbonate          | mmol/l | 14.5   | 11.5 | 17.5 | 1.50  | 3.00  | Enzymatic                      |
| Bilirubin Direct     | µmol/l | 28.0   | 22.1 | 33.9 | 2.95  | 5.90  | Dichlorophenyl Diazonium (DPD) |
|                      | mg/dl  | 1.64   | 1.29 | 1.99 | 0.18  | 0.35  |                                |
|                      | µmol/l | 27.4   | 21.7 | 33.1 | 2.85  | 5.70  | Diazo with Sulphanilic Acid    |
|                      | mg/dl  | 1.60   | 1.27 | 1.93 | 0.17  | 0.33  |                                |
|                      | µmol/l | 28.0   | 22.1 | 33.9 | 2.95  | 5.90  | Roche JG factored              |
| mg/dl                | 1.64   | 1.29   | 1.99 | 0.18 | 0.35  |       |                                |

## Roche Cobas C311®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

| Analyte         | unit   | Target | Range |      | 1SD   | 2SD   | methods                                       |
|-----------------|--------|--------|-------|------|-------|-------|-----------------------------------------------|
|                 |        |        | low   | high |       |       |                                               |
| Bilirubin Total | µmol/l | 81.4   | 64.3  | 98.5 | 8.55  | 17.10 | Diazo with Sulphanilic Acid                   |
|                 | mg/dl  | 4.76   | 3.76  | 5.76 | 0.50  | 1.00  |                                               |
|                 | µmol/l | 82.7   | 65.3  | 100  | 8.70  | 17.40 | Dichlorophenyl Diazonium (DPD)                |
|                 | mg/dl  | 4.84   | 3.82  | 5.86 | 0.51  | 1.02  |                                               |
|                 | µmol/l | 82.6   | 65.3  | 99.9 | 8.65  | 17.30 | Diazonium ion                                 |
|                 | mg/dl  | 4.83   | 3.82  | 5.84 | 0.51  | 1.01  |                                               |
| Calcium         | mmol/l | 3.11   | 2.80  | 3.42 | 0.16  | 0.31  | Cresolphthalein complexone                    |
|                 | mg/dl  | 12.5   | 11.2  | 13.8 | 0.65  | 1.30  |                                               |
|                 | mmol/l | 3.13   | 2.82  | 3.44 | 0.16  | 0.31  | NM-BAPTA                                      |
|                 | mg/dl  | 12.5   | 11.3  | 13.7 | 0.60  | 1.20  |                                               |
| Chloride        | mmol/l | 118    | 108   | 128  | 5.00  | 10.00 | ISE indirect                                  |
| Cholesterol     | mmol/l | 7.00   | 6.09  | 7.91 | 0.46  | 0.91  | Cholesterol Oxidase                           |
|                 | mg/dl  | 270    | 235   | 305  | 17.50 | 35.00 |                                               |
| CK Total        | U/l    | 491    | 403   | 579  | 44.00 | 88.00 | CK-NAC (IFCC) 37°C                            |
|                 | U/l    | 307    | 252   | 362  | 27.50 | 55.00 | CK-NAC (IFCC) 30°C                            |
|                 | U/l    | 209    | 171   | 247  | 19.00 | 38.00 | CK-NAC (IFCC) 25°C                            |
| Creatinine      | µmol/l | 398    | 318   | 478  | 40.00 | 80.00 | Alkaline picrate no deproteinization          |
|                 | mg/dl  | 4.50   | 3.59  | 5.41 | 0.46  | 0.91  |                                               |
|                 | µmol/l | 399    | 319   | 479  | 40.00 | 80.00 | Roche Creatinine Plus                         |
|                 | mg/dl  | 4.51   | 3.60  | 5.42 | 0.46  | 0.91  |                                               |
|                 | µmol/l | 394    | 315   | 473  | 39.50 | 79.00 | Jaffe rate blanked                            |
|                 | mg/dl  | 4.45   | 3.56  | 5.34 | 0.45  | 0.89  |                                               |
|                 | µmol/l | 392    | 314   | 470  | 39.00 | 78.00 | Jaffe rate blanked comp. (-26 µmol/l)         |
|                 | mg/dl  | 4.43   | 3.55  | 5.31 | 0.44  | 0.88  |                                               |
| gamma-GT        | U/l    | 157    | 134   | 180  | 11.50 | 23.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
|                 | U/l    | 124    | 106   | 142  | 9.00  | 18.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
|                 | U/l    | 97     | 83    | 111  | 7.00  | 14.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |



## Roche Cobas C311®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte           | unit   | Target | low  | high | 1SD   | 2SD    | methods                                             |
|-------------------|--------|--------|------|------|-------|--------|-----------------------------------------------------|
| gamma-GT          | U/l    | 180    | 153  | 207  | 13.50 | 27.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                   | U/l    | 142    | 121  | 163  | 10.50 | 21.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                   | U/l    | 111    | 94   | 128  | 8.50  | 17.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose           | mmol/l | 15.7   | 13.3 | 18.1 | 1.20  | 2.40   | Hexokinase                                          |
|                   | mg/dl  | 283    | 240  | 326  | 21.50 | 43.00  |                                                     |
|                   | mmol/l | 15.7   | 13.3 | 18.1 | 1.20  | 2.40   | Glucose oxidase                                     |
|                   | mg/dl  | 283    | 240  | 326  | 21.50 | 43.00  |                                                     |
| HDL - Cholesterol | mmol/l | 3.55   | 3.02 | 4.08 | 0.27  | 0.53   | Direct HDL Roche 3rd generation                     |
|                   | mg/dl  | 137    | 117  | 157  | 10.00 | 20.00  |                                                     |
|                   | mmol/l | 3.44   | 2.92 | 3.96 | 0.26  | 0.52   | Direct HDL Roche 4th Generation                     |
|                   | mg/dl  | 133    | 113  | 153  | 10.00 | 20.00  |                                                     |
| Iron              | µmol/l | 39.3   | 32.3 | 46.3 | 3.50  | 7.00   | Colorimetric without ppt.                           |
|                   | µg/dl  | 220    | 181  | 259  | 19.50 | 39.00  |                                                     |
| Lactate           | mmol/l | 5.54   | 4.54 | 6.54 | 0.50  | 1.00   | Colorimetric Lactate Oxidase                        |
|                   | mg/dl  | 49.9   | 40.9 | 58.9 | 4.50  | 9.00   |                                                     |
| LD (LDH)          | U/l    | 688    | 585  | 791  | 51.50 | 103.00 | P->L German methods 37°C                            |
|                   | U/l    | 497    | 422  | 572  | 37.50 | 75.00  | P->L German methods 30°C                            |
|                   | U/l    | 349    | 297  | 401  | 26.00 | 52.00  | P->L German methods 25°C                            |
|                   | U/l    | 373    | 317  | 429  | 28.00 | 56.00  | L->P IFCC 37°C                                      |
|                   | U/l    | 269    | 229  | 309  | 20.00 | 40.00  | L->P IFCC 30°C                                      |
|                   | U/l    | 189    | 161  | 217  | 14.00 | 28.00  | L->P IFCC 25°C                                      |
| Lipase            | U/l    | 52     | 42   | 62   | 5.00  | 10.00  | Roche Colorimetric 37°C                             |
| Magnesium         | mmol/l | 1.79   | 1.57 | 2.01 | 0.11  | 0.22   | Xylidyl Blue                                        |
|                   | mg/dl  | 4.35   | 3.82 | 4.88 | 0.27  | 0.53   |                                                     |

## Roche Cobas C311®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD   | methods                                   |
|---------------------|--------|--------|------|------|-------|-------|-------------------------------------------|
| Magnesium           | mmol/l | 1.78   | 1.56 | 2.00 | 0.11  | 0.22  | Chlorphosphonazo III                      |
|                     | mg/dl  | 4.33   | 3.79 | 4.87 | 0.27  | 0.54  |                                           |
| Phosphate Inorganic | mmol/l | 2.23   | 1.89 | 2.57 | 0.17  | 0.34  | Phosphomolybdate enzymatic                |
|                     | mg/dl  | 6.91   | 5.86 | 7.96 | 0.53  | 1.05  |                                           |
|                     | mmol/l | 2.24   | 1.91 | 2.57 | 0.17  | 0.33  | Phosphomolybdate UV                       |
|                     | mg/dl  | 6.94   | 5.92 | 7.96 | 0.51  | 1.02  |                                           |
| Potassium           | mmol/l | 6.45   | 5.94 | 6.96 | 0.26  | 0.51  | ISE method - indirect                     |
| Protein Total       | g/l    | 46.3   | 37.0 | 55.6 | 4.65  | 9.30  | Biuret reaction end point                 |
|                     | g/dl   | 4.63   | 3.70 | 5.56 | 0.47  | 0.93  |                                           |
| Sodium              | mmol/l | 161    | 153  | 169  | 4.00  | 8.00  | ISE method - indirect                     |
| TIBC                | µmol/l | 40.4   | 31.9 | 48.9 | 4.25  | 8.50  | FE+UIBC(saturation with iron)             |
|                     | µg/dl  | 226    | 178  | 274  | 24.00 | 48.00 |                                           |
| Triglycerides       | mmol/l | 2.95   | 2.48 | 3.42 | 0.24  | 0.47  | Lipase/GPO-PAP no correction              |
|                     | mg/dl  | 261    | 219  | 303  | 21.00 | 42.00 |                                           |
|                     | mmol/l | 2.95   | 2.48 | 3.42 | 0.24  | 0.47  | L/G Kinase EP. no correction              |
|                     | mg/dl  | 261    | 219  | 303  | 21.00 | 42.00 |                                           |
|                     | mmol/l | 2.95   | 2.48 | 3.42 | 0.24  | 0.47  | Lipase/Glycerol Dehydrogenase             |
|                     | mg/dl  | 261    | 219  | 303  | 21.00 | 42.00 |                                           |
| Urea                | mmol/l | 19.6   | 16.6 | 22.6 | 1.50  | 3.00  | Urease kinetic                            |
|                     | mg/dl  | 118    | 99.8 | 136  | 9.10  | 18.20 |                                           |
|                     | mmol/l | 19.6   | 16.7 | 22.5 | 1.45  | 2.90  | BUN                                       |
|                     | mg/dl  | 55.0   | 46.8 | 63.2 | 4.10  | 8.20  |                                           |
| Uric Acid (Urate)   | mmol/l | 0.55   | 0.48 | 0.62 | 0.04  | 0.07  | Uricase peroxidase with ascorbate oxidase |
|                     | mg/dl  | 9.22   | 8.01 | 10.4 | 0.61  | 1.21  |                                           |

**Roche Cobas C311®**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte           | unit   | Target | low  | high | 1SD  | 2SD  | methods                                           |
|-------------------|--------|--------|------|------|------|------|---------------------------------------------------|
| Uric Acid (Urate) | mmol/l | 0.55   | 0.47 | 0.62 | 0.04 | 0.07 | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 9.16   | 7.96 | 10.4 | 0.60 | 1.20 |                                                   |
|                   | mmol/l | 0.55   | 0.48 | 0.62 | 0.04 | 0.07 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 9.24   | 8.05 | 10.4 | 0.60 | 1.19 |                                                   |

## Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte              | unit   | Target | low  | high | 1SD   | 2SD   | methods                          |
|----------------------|--------|--------|------|------|-------|-------|----------------------------------|
| Albumin              | g/l    | 32.1   | 27.3 | 36.9 | 2.40  | 4.80  | Bromocresol Green                |
|                      | g/dl   | 3.21   | 2.73 | 3.69 | 0.24  | 0.48  |                                  |
|                      | g/l    | 28.9   | 24.6 | 33.2 | 2.15  | 4.30  | Bromocresol Purple               |
|                      | g/dl   | 2.89   | 2.46 | 3.32 | 0.22  | 0.43  |                                  |
|                      | g/l    | 30.5   | 25.9 | 35.1 | 2.30  | 4.60  | Turbidimetric Assays             |
|                      | g/dl   | 3.05   | 2.59 | 3.51 | 0.23  | 0.46  |                                  |
| Alkaline Phosphatase | U/l    | 265    | 225  | 305  | 20.00 | 40.00 | Roche Integra AMP buffer 37°C    |
|                      | U/l    | 206    | 175  | 237  | 15.50 | 31.00 | Roche Integra AMP buffer 30°C    |
|                      | U/l    | 169    | 144  | 194  | 12.50 | 25.00 | Roche Integra AMP buffer 25°C    |
| ALT (GPT)            | U/l    | 139    | 111  | 167  | 14.00 | 28.00 | Tris buffer without P5P 37°C     |
|                      | U/l    | 103    | 82   | 124  | 10.50 | 21.00 | Tris buffer without P5P 30°C     |
|                      | U/l    | 78     | 62   | 94   | 8.00  | 16.00 | Tris buffer without P5P 25°C     |
| Amylase Pancreatic   | U/l    | 255    | 217  | 293  | 19.00 | 38.00 | Roche EPS Liquid 37°C            |
| Amylase Total        | U/l    | 277    | 235  | 319  | 21.00 | 42.00 | BM/Roche Colorimetric pNPG7 37°C |
|                      | U/l    | 276    | 234  | 318  | 21.00 | 42.00 | Roche liquid stable pNPG7 37°C   |
| AST (GOT)            | U/l    | 142    | 114  | 170  | 14.00 | 28.00 | Tris buffer without P5P 37°C     |
|                      | U/l    | 96     | 77   | 115  | 9.50  | 19.00 | Tris buffer without P5P 30°C     |
|                      | U/l    | 68     | 54   | 82   | 7.00  | 14.00 | Tris buffer without P5P 25°C     |
| Bicarbonate          | mmol/l | 15.3   | 12.1 | 18.5 | 1.60  | 3.20  | Enzymatic                        |
| Bilirubin Direct     | µmol/l | 29.4   | 23.2 | 35.6 | 3.10  | 6.20  | Dichlorophenyl Diazonium (DPD)   |
|                      | mg/dl  | 1.72   | 1.36 | 2.08 | 0.18  | 0.36  |                                  |

## Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte          | unit   | Target | low  | high | 1SD    | 2SD     | methods                              |
|------------------|--------|--------|------|------|--------|---------|--------------------------------------|
| Bilirubin Direct | µmol/l | 29.6   | 23.4 | 35.8 | 3.10   | 6.20    | Roche JG factored                    |
|                  | mg/dl  | 1.73   | 1.37 | 2.09 | 0.18   | 0.36    |                                      |
|                  | µmol/l | 26.2   | 20.7 | 31.7 | 2.75   | 5.50    | Oxidation to Biliverdin/Vanadate     |
|                  | mg/dl  | 1.53   | 1.21 | 1.85 | 0.16   | 0.32    |                                      |
| Bilirubin Total  | µmol/l | 82.6   | 65.3 | 99.9 | 8.65   | 17.30   | Diazo with Dichloroaniline (DCA)     |
|                  | mg/dl  | 4.83   | 3.82 | 5.84 | 0.51   | 1.01    |                                      |
|                  | µmol/l | 81.4   | 64.3 | 98.5 | 8.55   | 17.10   | Diazo with Sulphanilic Acid          |
|                  | mg/dl  | 4.76   | 3.76 | 5.76 | 0.50   | 1.00    |                                      |
|                  | µmol/l | 81.0   | 64.0 | 98.0 | 8.50   | 17.00   | Dichlorophenyl Diazonium (DPD)       |
|                  | mg/dl  | 4.74   | 3.74 | 5.74 | 0.50   | 1.00    |                                      |
|                  | µmol/l | 81.4   | 64.3 | 98.5 | 8.55   | 17.10   | Diazonium ion                        |
|                  | mg/dl  | 4.76   | 3.76 | 5.76 | 0.50   | 1.00    |                                      |
| Calcium          | mmol/l | 3.07   | 2.76 | 3.38 | 0.16   | 0.31    | Cresolphthalein complexone           |
|                  | mg/dl  | 12.3   | 11.1 | 13.5 | 0.60   | 1.20    |                                      |
|                  | mmol/l | 3.09   | 2.78 | 3.40 | 0.16   | 0.31    | NM-BAPTA                             |
|                  | mg/dl  | 12.4   | 11.1 | 13.7 | 0.65   | 1.30    |                                      |
| Chloride         | mmol/l | 118    | 109  | 127  | 4.50   | 9.00    | ISE indirect                         |
| Cholesterol      | mmol/l | 6.95   | 6.05 | 7.85 | 0.45   | 0.90    | Cholesterol Oxidase                  |
|                  | mg/dl  | 268    | 234  | 302  | 17.00  | 34.00   |                                      |
| Cholinesterase   | U/l    | 5001   | 4001 | 6001 | 500.00 | 1000.00 | Colorimetric Butyrylthiocholine 37°C |
| CK Total         | U/l    | 478    | 392  | 564  | 43.00  | 86.00   | CK-NAC (IFCC) 37°C                   |
|                  | U/l    | 299    | 245  | 353  | 27.00  | 54.00   | CK-NAC (IFCC) 30°C                   |
|                  | U/l    | 203    | 167  | 239  | 18.00  | 36.00   | CK-NAC (IFCC) 25°C                   |
| Creatinine       | µmol/l | 394    | 315  | 473  | 39.50  | 79.00   | Roche Creatinine Plus                |
|                  | mg/dl  | 4.45   | 3.56 | 5.34 | 0.45   | 0.89    |                                      |

## Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte           | unit   | Target | low  | high | 1SD   | 2SD   | methods                                             |
|-------------------|--------|--------|------|------|-------|-------|-----------------------------------------------------|
| Creatinine        | µmol/l | 388    | 310  | 466  | 39.00 | 78.00 | Jaffe rate blanked                                  |
|                   | mg/dl  | 4.38   | 3.50 | 5.26 | 0.44  | 0.88  |                                                     |
|                   | µmol/l | 384    | 307  | 461  | 38.50 | 77.00 | Jaffe rate blanked comp. (-26 µmol/l)               |
|                   | mg/dl  | 4.34   | 3.47 | 5.21 | 0.44  | 0.87  |                                                     |
| gamma-GT          | U/l    | 149    | 127  | 171  | 11.00 | 22.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C       |
|                   | U/l    | 117    | 100  | 134  | 8.50  | 17.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C       |
|                   | U/l    | 92     | 78   | 106  | 7.00  | 14.00 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C       |
|                   | U/l    | 173    | 147  | 199  | 13.00 | 26.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                   | U/l    | 136    | 116  | 156  | 10.00 | 20.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                   | U/l    | 107    | 91   | 123  | 8.00  | 16.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose           | mmol/l | 15.5   | 13.2 | 17.8 | 1.15  | 2.30  | Hexokinase                                          |
|                   | mg/dl  | 279    | 238  | 320  | 20.50 | 41.00 |                                                     |
| HDL - Cholesterol | mmol/l | 3.47   | 2.95 | 3.99 | 0.26  | 0.52  | Direct HDL Roche 3rd generation                     |
|                   | mg/dl  | 134    | 114  | 154  | 10.00 | 20.00 |                                                     |
|                   | mmol/l | 3.49   | 2.97 | 4.01 | 0.26  | 0.52  | Direct HDL Roche 4th Generation                     |
|                   | mg/dl  | 135    | 115  | 155  | 10.00 | 20.00 |                                                     |
| Iron              | µmol/l | 38.3   | 31.4 | 45.2 | 3.45  | 6.90  | Colorimetric without ppt.                           |
|                   | µg/dl  | 214    | 176  | 252  | 19.00 | 38.00 |                                                     |
| Lactate           | mmol/l | 5.42   | 4.44 | 6.40 | 0.49  | 0.98  | Colorimetric Lactate Oxidase                        |
|                   | mg/dl  | 48.8   | 40.0 | 57.6 | 4.40  | 8.80  |                                                     |
| LD (LDH)          | U/l    | 368    | 313  | 423  | 27.50 | 55.00 | L->P IFCC 37°C                                      |
|                   | U/l    | 266    | 226  | 306  | 20.00 | 40.00 | L->P IFCC 30°C                                      |
|                   | U/l    | 187    | 159  | 215  | 14.00 | 28.00 | L->P IFCC 25°C                                      |
| Lithium           | mmol/l | 2.07   | 1.82 | 2.32 | 0.13  | 0.25  | Spectrophotometric                                  |
|                   | mg/dl  | 1.44   | 1.26 | 1.62 | 0.09  | 0.18  |                                                     |

## Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

| Analyte             | unit   | Target | Range |      | 1SD   | 2SD   | methods                                   |
|---------------------|--------|--------|-------|------|-------|-------|-------------------------------------------|
|                     |        |        | low   | high |       |       |                                           |
| Magnesium           | mmol/l | 1.77   | 1.56  | 1.98 | 0.11  | 0.21  | Xylidyl Blue                              |
|                     | mg/dl  | 4.30   | 3.79  | 4.81 | 0.26  | 0.51  |                                           |
|                     | mmol/l | 1.78   | 1.57  | 1.99 | 0.11  | 0.21  | Chlorphosphonazo III                      |
|                     | mg/dl  | 4.33   | 3.82  | 4.84 | 0.26  | 0.51  |                                           |
| Phosphate Inorganic | mmol/l | 2.20   | 1.87  | 2.53 | 0.17  | 0.33  | Phosphomolybdate UV                       |
|                     | mg/dl  | 6.82   | 5.80  | 7.84 | 0.51  | 1.02  |                                           |
| Potassium           | mmol/l | 6.44   | 5.92  | 6.96 | 0.26  | 0.52  | ISE method - indirect                     |
| Protein Total       | g/l    | 46.2   | 36.9  | 55.5 | 4.65  | 9.30  | Biuret reaction end point                 |
|                     | g/dl   | 4.62   | 3.69  | 5.55 | 0.47  | 0.93  |                                           |
| Sodium              | mmol/l | 161    | 153   | 169  | 4.00  | 8.00  | 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 |                                           |
|                     | μmol/l | 41.3   | 32.6  | 50.0 | 4.35  | 8.70  | Calculated from Transferrin               |
|                     | μg/dl  | 231    | 182   | 280  | 24.50 | 49.00 |                                           |
| Triglycerides       | mmol/l | 2.91   | 2.45  | 3.37 | 0.23  | 0.46  | Lipase/GPO-PAP no correction              |
|                     | mg/dl  | 258    | 217   | 299  | 20.50 | 41.00 |                                           |
|                     | mmol/l | 2.93   | 2.46  | 3.40 | 0.24  | 0.47  | L/G Kinase EP. no correction              |
|                     | mg/dl  | 259    | 218   | 300  | 20.50 | 41.00 |                                           |
| Urea                | mmol/l | 19.0   | 16.2  | 21.8 | 1.40  | 2.80  | Urease kinetic                            |
|                     | mg/dl  | 114    | 97.4  | 131  | 8.30  | 16.60 |                                           |
|                     | mmol/l | 19.0   | 16.2  | 21.8 | 1.40  | 2.80  | BUN                                       |
|                     | mg/dl  | 53.3   | 45.3  | 61.3 | 4.00  | 8.00  |                                           |
| Uric Acid (Urate)   | mmol/l | 0.53   | 0.47  | 0.60 | 0.03  | 0.07  | Uricase peroxidase with ascorbate oxidase |
|                     | mg/dl  | 8.97   | 7.81  | 10.1 | 0.58  | 1.16  |                                           |
|                     | mmol/l | 0.54   | 0.47  | 0.61 | 0.04  | 0.07  | Uricase peroxidase no ascorbate oxidase   |
|                     | mg/dl  | 9.04   | 7.86  | 10.2 | 0.59  | 1.18  |                                           |



### Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

Range

| Analyte           | unit   | Target | low  | high | 1SD  | 2SD  | methods                                           |
|-------------------|--------|--------|------|------|------|------|---------------------------------------------------|
| Uric Acid (Urate) | mmol/l | 0.54   | 0.47 | 0.61 | 0.04 | 0.07 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 9.00   | 7.83 | 10.2 | 0.59 | 1.17 |                                                   |



## RX SERIES®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte              | unit   | Target | low  | high | 1SD   | 2SD   | methods                             |
|----------------------|--------|--------|------|------|-------|-------|-------------------------------------|
| Albumin              | g/l    | 31.5   | 26.8 | 36.2 | 2.35  | 4.70  | Bromocresol Green                   |
|                      | g/dl   | 3.15   | 2.68 | 3.62 | 0.24  | 0.47  |                                     |
| Alkaline Phosphatase | U/l    | 533    | 453  | 613  | 40.00 | 80.00 | Diethanolamine buffer DEA 37°C      |
|                      | U/l    | 374    | 318  | 430  | 28.00 | 56.00 | AMP optimised to IFCC 37°C          |
| ALT (GPT)            | U/l    | 145    | 116  | 174  | 14.50 | 29.00 | Tris buffer without P5P 37°C        |
| Amylase Pancreatic   | U/l    | 301    | 256  | 346  | 22.50 | 45.00 | Randox Liquid Ethylidene pNPG7 37°C |
| Amylase Total        | U/l    | 309    | 263  | 355  | 23.00 | 46.00 | Randox Liquid Ethylidene pNPG7 37°C |
| AST (GOT)            | U/l    | 148    | 118  | 178  | 15.00 | 30.00 | Tris buffer without P5P 37°C        |
| Bicarbonate          | mmol/l | 17.1   | 13.6 | 20.6 | 1.75  | 3.50  | Enzymatic                           |
| Bile Acids           | µmol/l | 46.7   | 37.4 | 56.0 | 4.65  | 9.30  | 5th Generation Colorimetric         |
| Bilirubin Direct     | µmol/l | 30.4   | 24.0 | 36.8 | 3.20  | 6.40  | Diazo with Sulphanilic Acid         |
|                      | mg/dl  | 1.78   | 1.40 | 2.16 | 0.19  | 0.38  |                                     |
|                      | µmol/l | 32.8   | 25.9 | 39.7 | 3.45  | 6.90  | Oxidation to Biliverdin/Vanadate    |
|                      | mg/dl  | 1.92   | 1.52 | 2.32 | 0.20  | 0.40  |                                     |
| Bilirubin Total      | µmol/l | 91.9   | 72.6 | 111  | 9.65  | 19.30 | Diazo with Sulphanilic Acid         |
|                      | mg/dl  | 5.38   | 4.25 | 6.51 | 0.57  | 1.13  |                                     |
|                      | µmol/l | 103    | 81.5 | 125  | 10.75 | 21.50 | Oxidation to Biliverdin/Vanadate    |
|                      | mg/dl  | 6.03   | 4.77 | 7.29 | 0.63  | 1.26  |                                     |
| Calcium              | mmol/l | 3.09   | 2.78 | 3.40 | 0.16  | 0.31  | Arsenazo III                        |
|                      | mg/dl  | 12.4   | 11.1 | 13.7 | 0.65  | 1.30  |                                     |
| Chloride             | mmol/l | 116    | 107  | 125  | 4.50  | 9.00  | ISE direct                          |

## RX SERIES®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD    | methods                                             |
|---------------------|--------|--------|------|------|-------|--------|-----------------------------------------------------|
| Cholesterol         | mmol/l | 7.60   | 6.61 | 8.59 | 0.50  | 0.99   | Cholesterol Oxidase                                 |
|                     | mg/dl  | 293    | 255  | 331  | 19.00 | 38.00  |                                                     |
| CK Total            | U/l    | 524    | 430  | 618  | 47.00 | 94.00  | CK-NAC substrate start (DGKC) 37°C                  |
|                     | U/l    | 562    | 461  | 663  | 50.50 | 101.00 |                                                     |
| Creatinine          | µmol/l | 345    | 276  | 414  | 34.50 | 69.00  | Alkaline picrate no deproteinization                |
|                     | mg/dl  | 3.90   | 3.12 | 4.68 | 0.39  | 0.78   |                                                     |
|                     | µmol/l | 389    | 311  | 467  | 39.00 | 78.00  | Enzymatic UV method                                 |
|                     | mg/dl  | 4.40   | 3.51 | 5.29 | 0.45  | 0.89   |                                                     |
| gamma-GT            | U/l    | 181    | 154  | 208  | 13.50 | 27.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| Glucose             | mmol/l | 16.3   | 13.8 | 18.8 | 1.25  | 2.50   | Hexokinase                                          |
|                     | mg/dl  | 294    | 249  | 339  | 22.50 | 45.00  |                                                     |
|                     | mmol/l | 16.4   | 13.9 | 18.9 | 1.25  | 2.50   | Glucose oxidase                                     |
|                     | mg/dl  | 296    | 250  | 342  | 23.00 | 46.00  |                                                     |
| Iron                | µmol/l | 39.1   | 32.1 | 46.1 | 3.50  | 7.00   | Colorimetric without ppt.                           |
|                     | µg/dl  | 219    | 179  | 259  | 20.00 | 40.00  |                                                     |
| Lactate             | mmol/l | 5.31   | 4.35 | 6.27 | 0.48  | 0.96   | Colorimetric Lactate Oxidase                        |
|                     | mg/dl  | 47.8   | 39.2 | 56.4 | 4.30  | 8.60   |                                                     |
| LD (LDH)            | U/l    | 734    | 624  | 844  | 55.00 | 110.00 | P->L German methods 37°C                            |
|                     | U/l    | 366    | 311  | 421  | 27.50 | 55.00  |                                                     |
| Lipase              | U/l    | 86     | 69   | 103  | 8.50  | 17.00  | Randox Colorimetric 37°C                            |
| Lithium             | mmol/l | 2.15   | 1.89 | 2.41 | 0.13  | 0.26   | Colorimetric                                        |
|                     | mg/dl  | 1.49   | 1.31 | 1.67 | 0.09  | 0.18   |                                                     |
| Magnesium           | mmol/l | 1.78   | 1.57 | 1.99 | 0.11  | 0.21   | Xylidyl Blue                                        |
|                     | mg/dl  | 4.33   | 3.82 | 4.84 | 0.26  | 0.51   |                                                     |
| Phosphate Inorganic | mmol/l | 2.32   | 1.97 | 2.67 | 0.18  | 0.35   | Phosphomolybdate UV                                 |
|                     | mg/dl  | 7.19   | 6.11 | 8.27 | 0.54  | 1.08   |                                                     |

## RX SERIES®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte           | unit   | Target | low  | high | 1SD   | 2SD   | methods                                           |
|-------------------|--------|--------|------|------|-------|-------|---------------------------------------------------|
| Potassium         | mmol/l | 6.55   | 6.03 | 7.07 | 0.26  | 0.52  | Enzymatic                                         |
|                   | mmol/l | 6.26   | 5.76 | 6.76 | 0.25  | 0.50  | ISE method - direct                               |
| Protein Total     | g/l    | 48.0   | 38.4 | 57.6 | 4.80  | 9.60  | Biuret reaction end point                         |
|                   | g/dl   | 4.80   | 3.84 | 5.76 | 0.48  | 0.96  |                                                   |
| Sodium            | mmol/l | 155    | 147  | 163  | 4.00  | 8.00  | Enzymatic                                         |
|                   | mmol/l | 158    | 150  | 166  | 4.00  | 8.00  | ISE method - direct                               |
| TIBC              | µmol/l | 45.3   | 35.8 | 54.8 | 4.75  | 9.50  | Direct Colorimetric                               |
|                   | µg/dl  | 253    | 200  | 306  | 26.50 | 53.00 |                                                   |
| Triglycerides     | mmol/l | 3.02   | 2.54 | 3.50 | 0.24  | 0.48  | Lipase/GPO-PAP no correction                      |
|                   | mg/dl  | 267    | 225  | 309  | 21.00 | 42.00 |                                                   |
| Urea              | mmol/l | 19.6   | 16.7 | 22.5 | 1.45  | 2.90  | Urease kinetic                                    |
|                   | mg/dl  | 118    | 100  | 136  | 9.00  | 18.00 |                                                   |
|                   | mmol/l | 19.6   | 16.7 | 22.5 | 1.45  | 2.90  | BUN                                               |
|                   | mg/dl  | 55.0   | 46.8 | 63.2 | 4.10  | 8.20  |                                                   |
| Uric Acid (Urate) | mmol/l | 0.57   | 0.49 | 0.64 | 0.04  | 0.07  | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 9.49   | 8.27 | 10.7 | 0.61  | 1.22  |                                                   |
|                   | mmol/l | 0.57   | 0.50 | 0.65 | 0.04  | 0.07  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 9.61   | 8.37 | 10.9 | 0.62  | 1.24  |                                                   |

**SIEMENS ATELLICA / ADVIA 1200/1650/1800/2400**
**ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)**

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte              | unit   | Target | low  | high | 1SD   | 2SD   | methods                          |
|----------------------|--------|--------|------|------|-------|-------|----------------------------------|
| Albumin              | g/l    | 30.3   | 25.8 | 34.8 | 2.25  | 4.50  | Bromocresol Green                |
|                      | g/dl   | 3.03   | 2.58 | 3.48 | 0.23  | 0.45  |                                  |
|                      | g/l    | 29.4   | 25.0 | 33.8 | 2.20  | 4.40  | Bromocresol Purple               |
|                      | g/dl   | 2.94   | 2.50 | 3.38 | 0.22  | 0.44  |                                  |
| Alkaline Phosphatase | U/l    | 305    | 259  | 351  | 23.00 | 46.00 | AMP optimised to IFCC 37°C       |
| ALT (GPT)            | U/l    | 159    | 127  | 191  | 16.00 | 32.00 | Tris buffer without P5P 37°C     |
| Amylase Total        | U/l    | 295    | 250  | 340  | 22.50 | 45.00 | Siemens - blocked pNPG7 37°C     |
| AST (GOT)            | U/l    | 155    | 124  | 186  | 15.50 | 31.00 | Tris buffer without P5P 37°C     |
| Bicarbonate          | mmol/l | 16.4   | 13.0 | 19.8 | 1.70  | 3.40  | Enzymatic                        |
| Bile Acids           | µmol/l | 49.4   | 39.5 | 59.3 | 4.95  | 9.90  | Enzymatic Colorimetric           |
| Bilirubin Direct     | µmol/l | 29.5   | 23.3 | 35.7 | 3.10  | 6.20  | Oxidation to Biliverdin/Vanadate |
|                      | mg/dl  | 1.73   | 1.36 | 2.10 | 0.19  | 0.37  |                                  |
| Bilirubin Total      | µmol/l | 97.6   | 77.1 | 118  | 10.25 | 20.50 | Oxidation to Biliverdin/Vanadate |
|                      | mg/dl  | 5.71   | 4.51 | 6.91 | 0.60  | 1.20  |                                  |
| Calcium              | mmol/l | 3.17   | 2.85 | 3.49 | 0.16  | 0.32  | Cresolphthalein complexone       |
|                      | mg/dl  | 12.7   | 11.4 | 14.0 | 0.65  | 1.30  |                                  |
|                      | mmol/l | 3.03   | 2.73 | 3.33 | 0.15  | 0.30  | Arsenazo III                     |
|                      | mg/dl  | 12.1   | 10.9 | 13.3 | 0.60  | 1.20  |                                  |
| Chloride             | mmol/l | 121    | 111  | 131  | 5.00  | 10.00 | ISE indirect                     |
| Cholesterol          | mmol/l | 7.14   | 6.22 | 8.06 | 0.46  | 0.92  | Cholesterol Oxidase              |
|                      | mg/dl  | 276    | 240  | 312  | 18.00 | 36.00 |                                  |

**SIEMENS ATELLICA / ADVIA 1200/1650/1800/2400**
**ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)**

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD    | methods                                             |
|---------------------|--------|--------|------|------|-------|--------|-----------------------------------------------------|
| CK Total            | U/l    | 512    | 420  | 604  | 46.00 | 92.00  | CK-NAC (IFCC) 37°C                                  |
| Creatinine          | µmol/l | 378    | 302  | 454  | 38.00 | 76.00  | Enzymatic UV method                                 |
|                     | mg/dl  | 4.27   | 3.41 | 5.13 | 0.43  | 0.86   |                                                     |
|                     | µmol/l | 370    | 296  | 444  | 37.00 | 74.00  | Jaffe rate blanked comp. (-26 µmol/l)               |
|                     | mg/dl  | 4.18   | 3.34 | 5.02 | 0.42  | 0.84   |                                                     |
| gamma-GT            | U/l    | 175    | 148  | 202  | 13.50 | 27.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| Glucose             | mmol/l | 15.0   | 12.8 | 17.2 | 1.10  | 2.20   | Hexokinase                                          |
|                     | mg/dl  | 270    | 231  | 309  | 19.50 | 39.00  |                                                     |
|                     | mmol/l | 15.1   | 12.8 | 17.4 | 1.15  | 2.30   | Glucose oxidase                                     |
|                     | mg/dl  | 272    | 231  | 313  | 20.50 | 41.00  |                                                     |
| HDL - Cholesterol   | mmol/l | 2.29   | 1.95 | 2.63 | 0.17  | 0.34   | Direct Clearance Method                             |
|                     | mg/dl  | 88.4   | 75.3 | 102  | 6.55  | 13.10  |                                                     |
| Iron                | µmol/l | 39.1   | 32.0 | 46.2 | 3.55  | 7.10   | Colorimetric without ppt.                           |
|                     | µg/dl  | 219    | 179  | 259  | 20.00 | 40.00  |                                                     |
| Lactate             | mmol/l | 5.48   | 4.49 | 6.47 | 0.50  | 0.99   | Colorimetric Lactate Oxidase                        |
|                     | mg/dl  | 49.4   | 40.5 | 58.3 | 4.45  | 8.90   |                                                     |
| LD (LDH)            | U/l    | 707    | 601  | 813  | 53.00 | 106.00 | P->L German methods 37°C                            |
|                     | U/l    | 371    | 315  | 427  | 28.00 | 56.00  | Siemens Dimension L-P Non IFCC 37°C                 |
|                     | U/l    | 371    | 315  | 427  | 28.00 | 56.00  | L->P IFCC 37°C                                      |
| Lipase              | U/l    | 79     | 63   | 95   | 8.00  | 16.00  | Other Colorimetric 37°C                             |
| Lithium             | mmol/l | 2.08   | 1.83 | 2.33 | 0.13  | 0.25   | Spectrophotometric                                  |
|                     | mg/dl  | 1.44   | 1.27 | 1.61 | 0.09  | 0.17   |                                                     |
| Magnesium           | mmol/l | 1.76   | 1.55 | 1.97 | 0.11  | 0.21   | Xylidyl Blue                                        |
|                     | mg/dl  | 4.28   | 3.77 | 4.79 | 0.26  | 0.51   |                                                     |
| Phosphate Inorganic | mmol/l | 2.28   | 1.94 | 2.62 | 0.17  | 0.34   | Phosphomolybdate UV                                 |
|                     | mg/dl  | 7.07   | 6.01 | 8.13 | 0.53  | 1.06   |                                                     |


**SIEMENS ATELLICA / ADVIA 1200/1650/1800/2400**
**ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)**

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte           | unit   | Target | low  | high | 1SD   | 2SD   | methods                                           |
|-------------------|--------|--------|------|------|-------|-------|---------------------------------------------------|
| Potassium         | mmol/l | 6.42   | 5.90 | 6.94 | 0.26  | 0.52  | ISE method - indirect                             |
| Protein Total     | g/l    | 45.3   | 36.2 | 54.4 | 4.55  | 9.10  | Biuret reaction end point                         |
|                   | g/dl   | 4.53   | 3.62 | 5.44 | 0.46  | 0.91  |                                                   |
| Sodium            | mmol/l | 160    | 152  | 168  | 4.00  | 8.00  | ISE method - indirect                             |
| TIBC              | μmol/l | 45.0   | 35.6 | 54.4 | 4.70  | 9.40  | FE+UIBC(saturation with iron)                     |
|                   | μg/dl  | 252    | 199  | 305  | 26.50 | 53.00 |                                                   |
|                   | μmol/l | 44.8   | 35.4 | 54.2 | 4.70  | 9.40  | Direct Colorimetric                               |
|                   | μg/dl  | 250    | 198  | 302  | 26.00 | 52.00 |                                                   |
|                   | μmol/l | 37.3   | 29.5 | 45.1 | 3.90  | 7.80  |                                                   |
| Triglycerides     | mmol/l | 2.98   | 2.50 | 3.46 | 0.24  | 0.48  | Lipase/GPO-PAP no correction                      |
|                   | mg/dl  | 264    | 221  | 307  | 21.50 | 43.00 |                                                   |
| Urea              | mmol/l | 19.6   | 16.7 | 22.5 | 1.45  | 2.90  | Urease kinetic                                    |
|                   | mg/dl  | 118    | 100  | 136  | 9.00  | 18.00 |                                                   |
|                   | mmol/l | 19.6   | 16.7 | 22.5 | 1.45  | 2.90  | BUN                                               |
|                   | mg/dl  | 55.0   | 46.8 | 63.2 | 4.10  | 8.20  |                                                   |
| Uric Acid (Urate) | mmol/l | 0.56   | 0.49 | 0.63 | 0.04  | 0.07  | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 9.39   | 8.16 | 10.6 | 0.62  | 1.23  |                                                   |
|                   | mmol/l | 0.57   | 0.50 | 0.64 | 0.04  | 0.07  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 9.58   | 8.33 | 10.8 | 0.63  | 1.25  |                                                   |

## SIEMENS DIMENSION EXL®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte              | unit   | Target | low  | high | 1SD   | 2SD   | methods                                        |
|----------------------|--------|--------|------|------|-------|-------|------------------------------------------------|
| Albumin              | g/l    | 29.8   | 25.3 | 34.3 | 2.25  | 4.50  | Bromocresol Purple                             |
|                      | g/dl   | 2.98   | 2.53 | 3.43 | 0.23  | 0.45  |                                                |
| Alkaline Phosphatase | U/l    | 313    | 266  | 360  | 23.50 | 47.00 | Siemens Dimension AMP buffer 37°C              |
|                      | U/l    | 311    | 264  | 358  | 23.50 | 47.00 | AMP optimised to IFCC 37°C                     |
| ALT (GPT)            | U/l    | 154    | 123  | 185  | 15.50 | 31.00 | Tris buffer with P5P 37°C                      |
|                      | U/l    | 147    | 118  | 176  | 14.50 | 29.00 | Tris buffer with P5P NVKC 37°C                 |
|                      | U/l    | 154    | 123  | 185  | 15.50 | 31.00 | Siemens Dade Standard Non IFCC Correlated 37°C |
| Amylase Total        | U/l    | 346    | 294  | 398  | 26.00 | 52.00 | Siemens 2-chloro-pNPG3 37°C                    |
| AST (GOT)            | U/l    | 182    | 145  | 219  | 18.50 | 37.00 | Tris buffer with P5P 37°C                      |
|                      | U/l    | 187    | 149  | 225  | 19.00 | 38.00 | Tris buffer with P5P NVKC 37°C                 |
|                      | U/l    | 186    | 148  | 224  | 19.00 | 38.00 | Siemens Dade Standard Non IFCC Correlated 37°C |
| Bicarbonate          | mmol/l | 16.4   | 13.0 | 19.8 | 1.70  | 3.40  | Enzymatic                                      |
| Bilirubin Total      | µmol/l | 86.9   | 68.6 | 105  | 9.15  | 18.30 | Diazo with Sulphanilic Acid                    |
|                      | mg/dl  | 5.08   | 4.01 | 6.15 | 0.54  | 1.07  |                                                |
| Calcium              | mmol/l | 3.06   | 2.75 | 3.37 | 0.16  | 0.31  | Cresolphthalein complexone                     |
|                      | mg/dl  | 12.3   | 11.0 | 13.6 | 0.65  | 1.30  |                                                |
| Chloride             | mmol/l | 118    | 109  | 127  | 4.50  | 9.00  | ISE indirect                                   |
| Cholesterol          | mmol/l | 6.79   | 5.91 | 7.67 | 0.44  | 0.88  | Cholesterol Oxidase                            |
|                      | mg/dl  | 262    | 228  | 296  | 17.00 | 34.00 |                                                |
|                      | mmol/l | 6.86   | 5.97 | 7.75 | 0.45  | 0.89  | Dimension-Siemens reagents                     |
|                      | mg/dl  | 265    | 230  | 300  | 17.50 | 35.00 |                                                |

## SIEMENS DIMENSION EXL®

## ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

### Range

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD   | methods                                             |
|---------------------|--------|--------|------|------|-------|-------|-----------------------------------------------------|
| CK Total            | U/l    | 474    | 389  | 559  | 42.50 | 85.00 | CK-NAC (IFCC) 37°C                                  |
| Creatinine          | μmol/l | 386    | 309  | 463  | 38.50 | 77.00 | Alkaline picrate no deproteinization                |
|                     | mg/dl  | 4.36   | 3.49 | 5.23 | 0.44  | 0.87  |                                                     |
|                     | μmol/l | 391    | 313  | 469  | 39.00 | 78.00 | Jaffe rate blanked                                  |
|                     | mg/dl  | 4.42   | 3.54 | 5.30 | 0.44  | 0.88  |                                                     |
| gamma-GT            | μmol/l | 387    | 310  | 464  | 38.50 | 77.00 | IDMS traceable                                      |
|                     | mg/dl  | 4.37   | 3.50 | 5.24 | 0.44  | 0.87  |                                                     |
| gamma-GT            | U/l    | 179    | 153  | 205  | 13.00 | 26.00 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                     | U/l    | 196    | 167  | 225  | 14.50 | 29.00 | Siemens Dimension (non IFCC) 37°C                   |
| Glucose             | mmol/l | 15.4   | 13.1 | 17.7 | 1.15  | 2.30  | Hexokinase                                          |
|                     | mg/dl  | 278    | 236  | 320  | 21.00 | 42.00 |                                                     |
| HDL - Cholesterol   | mmol/l | 2.77   | 2.35 | 3.19 | 0.21  | 0.42  | Direct HDL PEGME                                    |
|                     | mg/dl  | 107    | 90.7 | 123  | 8.15  | 16.30 |                                                     |
| Iron                | μmol/l | 37.6   | 30.8 | 44.4 | 3.40  | 6.80  | Colorimetric without ppt.                           |
|                     | μg/dl  | 210    | 172  | 248  | 19.00 | 38.00 |                                                     |
| LD (LDH)            | U/l    | 349    | 297  | 401  | 26.00 | 52.00 | L->P IFCC 37°C                                      |
| Lipase              | U/l    | 250    | 200  | 300  | 25.00 | 50.00 | Colorimetric Siemens Dimension (LIPL Kit) 37°C      |
| Magnesium           | mmol/l | 1.77   | 1.55 | 1.99 | 0.11  | 0.22  | Methylthymol blue                                   |
|                     | mg/dl  | 4.30   | 3.77 | 4.83 | 0.27  | 0.53  |                                                     |
| Phosphate Inorganic | mmol/l | 2.28   | 1.94 | 2.62 | 0.17  | 0.34  | Phosphomolybdate UV                                 |
|                     | mg/dl  | 7.07   | 6.01 | 8.13 | 0.53  | 1.06  |                                                     |
| Potassium           | mmol/l | 6.40   | 5.88 | 6.92 | 0.26  | 0.52  | ISE method - indirect                               |
| Protein Total       | g/l    | 47.6   | 38.1 | 57.1 | 4.75  | 9.50  | Biuret reaction end point                           |
|                     | g/dl   | 4.76   | 3.81 | 5.71 | 0.48  | 0.95  |                                                     |
| Sodium              | mmol/l | 160    | 152  | 168  | 4.00  | 8.00  | ISE method - indirect                               |



**SIEMENS DIMENSION EXL®****ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)**

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte           | unit   | Target | low  | high | 1SD   | 2SD   | methods                                 |
|-------------------|--------|--------|------|------|-------|-------|-----------------------------------------|
| Triglycerides     | mmol/l | 2.89   | 2.43 | 3.35 | 0.23  | 0.46  | Lipase/GPO-PAP no correction            |
|                   | mg/dl  | 256    | 215  | 297  | 20.50 | 41.00 |                                         |
|                   | mmol/l | 2.91   | 2.44 | 3.38 | 0.24  | 0.47  | L/G Kinase EP. no correction            |
|                   | mg/dl  | 258    | 216  | 300  | 21.00 | 42.00 |                                         |
| Urea              | mmol/l | 19.7   | 16.8 | 22.6 | 1.45  | 2.90  | Urease kinetic                          |
|                   | mg/dl  | 118    | 101  | 135  | 8.50  | 17.00 |                                         |
|                   | mmol/l | 19.7   | 16.7 | 22.7 | 1.50  | 3.00  | BUN                                     |
|                   | mg/dl  | 55.3   | 47.0 | 63.6 | 4.15  | 8.30  |                                         |
| Uric Acid (Urate) | mmol/l | 0.56   | 0.48 | 0.63 | 0.04  | 0.07  | Uricase peroxidase no ascorbate oxidase |
|                   | mg/dl  | 9.34   | 8.13 | 10.6 | 0.61  | 1.21  |                                         |
|                   | mmol/l | 0.55   | 0.47 | 0.62 | 0.04  | 0.07  | Spectrophotometric at 280-290           |
|                   | mg/dl  | 9.16   | 7.96 | 10.4 | 0.60  | 1.20  |                                         |


**SIEMENS DIMENSION RxL/Max/Xpand®**
**ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)**

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte              | unit   | Target | low  | high | 1SD   | 2SD   | methods                                        |
|----------------------|--------|--------|------|------|-------|-------|------------------------------------------------|
| Albumin              | g/l    | 30.9   | 26.3 | 35.5 | 2.30  | 4.60  | Bromocresol Green                              |
|                      | g/dl   | 3.09   | 2.63 | 3.55 | 0.23  | 0.46  |                                                |
|                      | g/l    | 29.6   | 25.2 | 34.0 | 2.20  | 4.40  | Bromocresol Purple                             |
|                      | g/dl   | 2.96   | 2.52 | 3.40 | 0.22  | 0.44  |                                                |
| Alkaline Phosphatase | U/l    | 307    | 261  | 353  | 23.00 | 46.00 | Siemens Dimension AMP buffer 37°C              |
|                      | U/l    | 318    | 270  | 366  | 24.00 | 48.00 | AMP optimised to IFCC 37°C                     |
| ALT (GPT)            | U/l    | 152    | 122  | 182  | 15.00 | 30.00 | Tris buffer with P5P 37°C                      |
|                      | U/l    | 155    | 124  | 186  | 15.50 | 31.00 | Siemens Dade Standard Non IFCC Correlated 37°C |
| Amylase Total        | U/l    | 349    | 297  | 401  | 26.00 | 52.00 | Siemens 2-chloro-pNPG3 37°C                    |
| AST (GOT)            | U/l    | 181    | 145  | 217  | 18.00 | 36.00 | Tris buffer with P5P 37°C                      |
|                      | U/l    | 190    | 152  | 228  | 19.00 | 38.00 | Siemens Dade Standard Non IFCC Correlated 37°C |
| Bilirubin Total      | µmol/l | 86.1   | 68.0 | 104  | 9.05  | 18.10 | Diazo with Sulphanilic Acid                    |
|                      | mg/dl  | 5.04   | 3.98 | 6.10 | 0.53  | 1.06  |                                                |
| Calcium              | mmol/l | 3.03   | 2.73 | 3.33 | 0.15  | 0.30  | Cresolphthalein complexone                     |
|                      | mg/dl  | 12.1   | 10.9 | 13.3 | 0.60  | 1.20  |                                                |
| Chloride             | mmol/l | 119    | 110  | 128  | 4.50  | 9.00  | ISE indirect                                   |
| Cholesterol          | mmol/l | 6.89   | 6.00 | 7.78 | 0.45  | 0.89  | Dimension-Siemens reagents                     |
|                      | mg/dl  | 266    | 232  | 300  | 17.00 | 34.00 |                                                |
| CK Total             | U/l    | 473    | 388  | 558  | 42.50 | 85.00 | CK-NAC (IFCC) 37°C                             |
| Creatinine           | µmol/l | 378    | 303  | 453  | 37.50 | 75.00 | Alkaline picrate no deproteinization           |
|                      | mg/dl  | 4.27   | 3.42 | 5.12 | 0.43  | 0.85  |                                                |

**SIEMENS DIMENSION RxL/Max/Xpand®**
**ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)**

Lot. No. 1079UE Cat. No. HE1532 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28

**Range**

| Analyte             | unit   | Target | low  | high | 1SD   | 2SD   | methods                                        |
|---------------------|--------|--------|------|------|-------|-------|------------------------------------------------|
| Creatinine          | µmol/l | 378    | 303  | 453  | 37.50 | 75.00 | Enzymatic UV method                            |
|                     | mg/dl  | 4.27   | 3.42 | 5.12 | 0.43  | 0.85  |                                                |
|                     | µmol/l | 390    | 312  | 468  | 39.00 | 78.00 | IDMS traceable                                 |
|                     | mg/dl  | 4.41   | 3.53 | 5.29 | 0.44  | 0.88  |                                                |
| gamma-GT            | U/l    | 198    | 168  | 228  | 15.00 | 30.00 | Siemens Dimension (non IFCC) 37°C              |
| Glucose             | mmol/l | 15.4   | 13.1 | 17.7 | 1.15  | 2.30  | Hexokinase                                     |
|                     | mg/dl  | 278    | 236  | 320  | 21.00 | 42.00 |                                                |
| HDL - Cholesterol   | mmol/l | 2.94   | 2.50 | 3.38 | 0.22  | 0.44  | Direct HDL PPD                                 |
|                     | mg/dl  | 113    | 96.5 | 130  | 8.25  | 16.50 |                                                |
|                     | mmol/l | 2.85   | 2.42 | 3.28 | 0.22  | 0.43  | Direct HDL PEGME                               |
|                     | mg/dl  | 110    | 93.4 | 127  | 8.30  | 16.60 |                                                |
| Iron                | µmol/l | 37.5   | 30.7 | 44.3 | 3.40  | 6.80  | Colorimetric without ppt.                      |
|                     | µg/dl  | 210    | 172  | 248  | 19.00 | 38.00 |                                                |
| LD (LDH)            | U/l    | 348    | 296  | 400  | 26.00 | 52.00 | L->P IFCC 37°C                                 |
| Lipase              | U/l    | 246    | 197  | 295  | 24.50 | 49.00 | Colorimetric Siemens Dimension (LIPL Kit) 37°C |
| Magnesium           | mmol/l | 1.78   | 1.57 | 1.99 | 0.11  | 0.21  | Methylthymol blue                              |
|                     | mg/dl  | 4.33   | 3.82 | 4.84 | 0.26  | 0.51  |                                                |
| Phosphate Inorganic | mmol/l | 2.25   | 1.92 | 2.58 | 0.17  | 0.33  | Phosphomolybdate enzymatic                     |
|                     | mg/dl  | 6.98   | 5.95 | 8.01 | 0.52  | 1.03  |                                                |
|                     | mmol/l | 2.23   | 1.89 | 2.57 | 0.17  | 0.34  | Phosphomolybdate UV                            |
|                     | mg/dl  | 6.91   | 5.86 | 7.96 | 0.53  | 1.05  |                                                |
| Potassium           | mmol/l | 6.35   | 5.84 | 6.86 | 0.26  | 0.51  | ISE method - indirect                          |
| Protein Total       | g/l    | 47.3   | 37.9 | 56.7 | 4.70  | 9.40  | Biuret reaction end point                      |
|                     | g/dl   | 4.73   | 3.79 | 5.67 | 0.47  | 0.94  |                                                |
| Sodium              | mmol/l | 160    | 152  | 168  | 4.00  | 8.00  | ISE method - indirect                          |



| SIEMENS DIMENSION RxL/Max/Xpand®          |        | ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3) |      |      |       |       |                                         |
|-------------------------------------------|--------|------------------------------------------------|------|------|-------|-------|-----------------------------------------|
| Lot. No. 1079UE Cat. No. HE1532 / HS2611  |        |                                                |      |      |       |       |                                         |
| Size 20 x 5ml / 5 x 5ml Expiry 2023-02-28 |        | Range                                          |      |      |       |       |                                         |
| Analyte                                   | unit   | Target                                         | low  | high | 1SD   | 2SD   | methods                                 |
| Triglycerides                             | mmol/l | 2.90                                           | 2.44 | 3.36 | 0.23  | 0.46  | Lipase/GPO-PAP no correction            |
|                                           | mg/dl  | 257                                            | 216  | 298  | 20.50 | 41.00 |                                         |
|                                           | mmol/l | 2.95                                           | 2.48 | 3.42 | 0.24  | 0.47  | Lipase/Glycerol Dehydrogenase           |
|                                           | mg/dl  | 261                                            | 219  | 303  | 21.00 | 42.00 |                                         |
| Urea                                      | mmol/l | 19.6                                           | 16.7 | 22.5 | 1.45  | 2.90  | Urease end point                        |
|                                           | mg/dl  | 118                                            | 100  | 136  | 9.00  | 18.00 |                                         |
|                                           | mmol/l | 19.6                                           | 16.7 | 22.5 | 1.45  | 2.90  | Urease kinetic                          |
|                                           | mg/dl  | 118                                            | 100  | 136  | 9.00  | 18.00 |                                         |
|                                           | mmol/l | 19.6                                           | 16.7 | 22.5 | 1.45  | 2.90  | BUN                                     |
|                                           | mg/dl  | 55.0                                           | 46.8 | 63.2 | 4.10  | 8.20  |                                         |
| Uric Acid (Urate)                         | mmol/l | 0.55                                           | 0.47 | 0.62 | 0.04  | 0.07  | Uricase peroxidase no ascorbate oxidase |
|                                           | mg/dl  | 9.16                                           | 7.96 | 10.4 | 0.60  | 1.20  |                                         |
|                                           | mmol/l | 0.55                                           | 0.48 | 0.62 | 0.04  | 0.07  | Spectrophotometric at 280-290           |
|                                           | mg/dl  | 9.22                                           | 8.03 | 10.4 | 0.60  | 1.19  |                                         |