# CALIBRATION SERUM - LEVEL 2 (CAL 2)

**CAT. NO.** CAL 2350 **GTIN:** 05055273200959 **SIZE:** 20 x 5ml
**LOT NO.** 1488UN **EXPIRY:** 2023-04-28

## INTENDED USE
For use as a Calibrator in clinical chemistry assays. RANDOX Calibration Sera are based on lyophilised human serum. The concentrations and activities are suitable for calibration of clinical chemistry assays on a wide range of automatic analysers. Constituent concentrations are available at 2 levels.

## SAFETY PRECAUTIONS AND WARNINGS
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. For *in vitro* diagnostic use only.

## STORAGE AND STABILITY
Unreconstituted serum is stable up to the expiry date shown on the side of each individual bottle. Once reconstituted, the components of the Calibration Sera are stable for 8 hours at +15°C to +25°C, 7 days at +2°C to +8°C, and 28 days at –20°C when frozen once (see Limitations).

## PREPARATION FOR USE
Serum must only be reconstituted using the following procedure:
1. Open the vial carefully, avoiding any loss of material.
2. Reconstitute by pipetting exactly 5ml of distilled water at +15°C to +25°C, into the vial.
3. Replace the rubber stopper and leave to stand for 30 minutes out of bright light before use.
4. Swirl gently several times during the reconstitution period to ensure that the contents are completely dissolved.
5. Prior to use, mix the contents by inverting the vial. Do not shake the vial, as the formation of foam should be avoided.
   Ensure that no lyophilised material remains unreconstituted.
6. The serum is then ready for use with either a manual test or with an automated instrument.

## MATERIALS PROVIDED
Calibration Serum - Level 2
Cat No. CAL 2350 20 x 5ml

## MATERIALS REQUIRED BUT NOT PROVIDED
Calibrated pipette, double deionised water.

## LIMITATIONS
After reconstitution, Bicarbonate is stable for 8 hours in the closed bottle and 1 hour in the open bottle.
For Total and 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 & Prostatic Acid Phosphatase are stable for 2 hours at +15°C to +25°C, 2 days at +2°C to +8°C, and 28 days when frozen once at –20°C.
Alkaline Phosphatase levels in the reconstituted serum will rise over the stability period. It is recommended that the reconstituted serum is allowed to stand for 1 hour at +15°C to +25°C before measurement.
Bilirubin in the serum is light sensitive and it is recommended that the serum is stored in the dark. Stored in the dark, it is stable for 1 day at +2°C to +8°C. Do not store at +15°C to +25°C. Do not freeze.
Bacterial contamination of the reconstituted serum will cause reductions in the stability of many components.
Different lot numbers of this calibrator should not be interchanged, as the values assigned to the calibrators vary from lot to lot.
Due to the zinc content in some batches of rubber stoppers, the 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.

## VALUE ASSIGNMENT

Each batch of serum is distributed to approximately 3000 laboratories worldwide and values are assigned by a consensus of results obtained by these laboratories. The Calibration values for each instrument have been determined in at least 10 independent laboratories. Values are verified against a master lot of calibrator, which is traceable to reference methods or reference materials. In some cases, values may be assigned at Randox Laboratories in comparison to a master lot of calibrator, which is traceable to reference methods or reference materials.

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

## NOTES

® All trademarks recognised.

(1) Values established by reference laboratories officially recognised by the Federal Chamber of Physicians in Germany.
(2) DGKC: German Society for Clinical Chemistry.
(3) IFCC: International Federation of Clinical Chemistry.
(4) 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. 02 Nov '21 ne

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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Abbott Alinity/ Architect c/ci Systems®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 41.9 | Bromocresol Green |
| | g/dl | 4.19 | |
| | g/l | 44.3 | Bromocresol Purple |
| | g/dl | 4.43 | |
| Alkaline Phosphatase | U/l | 166 | AMP optimised to IFCC 37°C |
| | U/l | 165 | AMP non-optimised 37°C |
| | U/l | 161 | Colorimetric 37°C |
| ALT (GPT) | U/l | 38 | Tris buffer without P5P 37°C |
| Amylase Pancreatic | U/l | 67 | Immunoinhibition EPS substrate 37°C |
| Amylase Total | U/l | 100 | Abbott Architect IFCC Cal. 37°C |
| | U/l | 95 | Abbott Architect Non-IFCC Cal. 37°C |
| AST (GOT) | U/l | 34 | Tris buffer without P5P 37°C |
| Bile Acids | µmol/l | 25.5 | Enzymatic Colorimetric |
| Bilirubin Direct | µmol/l | 19.9 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.16 | |
| | µmol/l | 19.5 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.14 | |
| | µmol/l | 19.3 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.13 | |
| Bilirubin Total | µmol/l | 25.7 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.50 | |
| | µmol/l | 25.6 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.50 | |
| | µmol/l | 25.7 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.50 | |
| | µmol/l | 25.2 | Diazonium ion |
| | mg/dl | 1.47 | |
| Calcium | mmol/l | 2.19 | Arsenazo III |
| | mg/dl | 8.78 | |
| Chloride | mmol/l | 101 | ISE indirect |
| Cholesterol | mmol/l | 3.96 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 153 | |
| | mmol/l | 4.00 | Cholesterol Oxidase - IDMS |
| | mg/dl | 154 | |
| | mmol/l | 3.98 | Cholesterol Dehydrogenase |
| | mg/dl | 154 | |
| Cholinesterase | U/l | 6236 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 208 | CK-NAC serum start (DGKC) 37°C |
| | U/l | 211 | CK-NAC substrate start (DGKC) 37°C |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Abbott Alinity/ Architect c/ci Systems®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| CK Total | U/l | 205 | CK-NAC (IFCC) 37°C |
| | U/l | 213 | Monothioglycerol 37°C |
| | U/l | 208 | Abbott CK-NAC (IFCC) 37°C |
| Creatinine | µmol/l | 139 | Alkaline picrate with deproteinization |
| | mg/dl | 1.57 | |
| | µmol/l | 136 | Alkaline picrate no deproteinization |
| | mg/dl | 1.54 | |
| | µmol/l | 134 | Enzymatic UV method |
| | mg/dl | 1.52 | |
| | µmol/l | 136 | Jaffe rate blanked |
| | mg/dl | 1.53 | |
| | µmol/l | 133 | IDMS traceable |
| | mg/dl | 1.51 | |
| gamma-GT | U/l | 53 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 53 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 53 | DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C |
| Glucose | mmol/l | 5.90 | Hexokinase |
| | mg/dl | 106 | |
| | mmol/l | 6.03 | Glucose oxidase |
| | mg/dl | 109 | |
| Iron | µmol/l | 21.3 | Colorimetric with ppt. |
| | µg/dl | 119 | |
| | µmol/l | 21.0 | Colorimetric without ppt. |
| | µg/dl | 117 | |
| Lactate | mmol/l | 1.59 | Colorimetric Lactate Oxidase |
| | mg/dl | 14.3 | |
| LD (LDH) | U/l | 194 | L->P 37°C |
| | U/l | 198 | L->P IFCC 37°C |
| Lipase | U/l | 35 | Other Colorimetric 37°C |
| Lithium | mmol/l | 1.04 | Spectrophotometric |
| | mg/dl | 0.722 | |
| Magnesium | mmol/l | 0.839 | Arsenazo III |
| | mg/dl | 2.04 | |
| | mmol/l | 0.847 | Xylidyl Blue |
| | mg/dl | 2.06 | |
| | mmol/l | 0.848 | Enzymatic |
| | mg/dl | 2.06 | |
| Phosphate Inorganic | mmol/l | 1.40 | Phosphomolybdate enzymatic |
| | mg/dl | 4.34 | |
| | mmol/l | 1.39 | Phosphomolybdate UV |
| | mg/dl | 4.31 | |
| Potassium | mmol/l | 3.98 | ISE method - indirect |
| Protein Total | g/l | 57.9 | Biuret reaction end point |
| | g/dl | 5.79 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Abbott Alinity/ Architect c/ci Systems®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Protein Total | g/l | 57.6 | Biuret reaction kinetic |
| | g/dl | 5.76 | |
| Sodium | mmol/l | 142 | ISE method - indirect |
| TIBC | µmol/l | 36.5 | FE+UIBC(saturation with iron) |
| | µg/dl | 204 | |
| | µmol/l | 38.8 | Calculated from Transferrin |
| | µg/dl | 217 | |
| Triglycerides | mmol/l | 1.02 | Lipase/GPO-PAP no correction |
| | mg/dl | 90.3 | |
| | mmol/l | 0.975 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 86.3 | |
| | mmol/l | 1.04 | L/G Kinase EP. no correction |
| | mg/dl | 92.1 | |
| | mmol/l | 1.01 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 89.4 | |
| UIBC | µmol/l | 14.9 | Direct Colorimetric |
| | µg/dl | 83.0 | |
| Urea | mmol/l | 7.60 | Urease end point |
| | mg/dl | 45.7 | |
| | mmol/l | 7.47 | Urease kinetic |
| | mg/dl | 44.9 | |
| | mmol/l | 7.47 | BUN |
| | mg/dl | 21.0 | |
| Uric Acid (Urate) | mmol/l | 0.348 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.85 | |
| | mmol/l | 0.348 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.85 | |
| | mmol/l | 0.350 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.88 | |
| Zinc | µmol/l | 20.4 | Colorimetric with deproteinisation |
| | µg/dl | 133 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**ABX Pentra 400®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 40.0 | Bromocresol Green |
| | g/dl | 4.00 | |
| Alkaline Phosphatase | U/l | 162 | AMP optimised to IFCC 37°C |
| ALT (GPT) | U/l | 41 | Tris buffer without P5P 37°C |
| AST (GOT) | U/l | 36 | Tris buffer without P5P 37°C |
| Bilirubin Direct | µmol/l | 20.7 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.21 | |
| Bilirubin Total | µmol/l | 27.5 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.61 | |
| Calcium | mmol/l | 2.17 | Arsenazo III |
| | mg/dl | 8.70 | |
| Chloride | mmol/l | 102 | ISE direct |
| Cholesterol | mmol/l | 4.03 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 156 | |
| CK Total | U/l | 206 | CK-NAC (IFCC) 37°C |
| Creatinine | µmol/l | 137 | Alkaline picrate no deproteinization |
| | mg/dl | 1.54 | |
| gamma-GT | U/l | 52 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 55 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| Glucose | mmol/l | 5.99 | Hexokinase |
| | mg/dl | 108 | |
| | mmol/l | 6.18 | Glucose oxidase |
| | mg/dl | 111 | |
| Iron | µmol/l | 19.5 | Colorimetric without ppt. |
| | µg/dl | 109 | |
| LD (LDH) | U/l | 373 | P->L German methods 37°C |
| | U/l | 220 | L->P IFCC 37°C |
| Lipase | U/l | 29 | Other Colorimetric 37°C |
| Magnesium | mmol/l | 0.874 | Xylidyl Blue |
| | mg/dl | 2.12 | |
| Phosphate Inorganic | mmol/l | 1.51 | Phosphomolybdate UV |
| | mg/dl | 4.68 | |
| Potassium | mmol/l | 3.93 | ISE method - direct |
| Protein Total | g/l | 57.6 | Biuret reaction end point |
| | g/dl | 5.76 | |
| Sodium | mmol/l | 141 | ISE method - direct |
| Triglycerides | mmol/l | 1.10 | Lipase/GPO-PAP no correction |
| | mg/dl | 97.4 | |
| Urea | mmol/l | 6.94 | Urease kinetic |
| | mg/dl | 41.7 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**ABX Pentra 400®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Urea | mmol/l | 6.94 | BUN |
| | mg/dl | 19.5 | |
| Uric Acid (Urate) | mmol/l | 0.336 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.64 | |
| | mmol/l | 0.332 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.58 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Beckman Coulter AU Series®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 40.0 | Bromocresol Green |
| | g/dl | 4.00 | |
| | g/l | 41.5 | Bromocresol Purple |
| | g/dl | 4.15 | |
| Alkaline Phosphatase | U/l | 138 | Roche Integra AMP buffer 37°C |
| | U/l | 195 | AMP optimised to IFCC 37°C |
| | U/l | 176 | AMP non-optimised 37°C |
| ALT (GPT) | U/l | 39 | Colorimetric 37°C |
| | U/l | 39 | Tris buffer without P5P 37°C |
| Amylase Pancreatic | U/l | 65 | Immunoinhibition EPS substrate 37°C |
| Amylase Total | U/l | 83 | Randox Liquid Ethylidene pNPG7 37°C |
| | U/l | 86 | Roche liquid stable pNPG7 37°C |
| | U/l | 91 | Beckman Coulter - blocked pNPG7 37°C |
| | U/l | 91 | Beckman Synchron AMY7 37°C |
| | U/l | 87 | Beckman CNPG3 (Extinction Coeff) 37°C |
| AST (GOT) | U/l | 35 | Colorimetric 37°C |
| | U/l | 37 | Tris buffer without P5P 37°C |
| Bicarbonate | mmol/l | 14.5 | Enzymatic |
| Bilirubin Direct | µmol/l | 19.1 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.12 | |
| | µmol/l | 18.6 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.09 | |
| | µmol/l | 19.1 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.11 | |
| | µmol/l | 19.6 | Diazo/ Sulphanilic Beckman DxC |
| | mg/dl | 1.14 | |
| Bilirubin Total | µmol/l | 28.0 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.64 | |
| | µmol/l | 28.6 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.67 | |
| | µmol/l | 29.6 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.73 | |
| | µmol/l | 25.7 | Diazonium ion |
| | mg/dl | 1.50 | |
| | µmol/l | 29.0 | Oxidation to Biliverdin/Vanadate |
| | mg/dl | 1.70 | |
| | µmol/l | 29.5 | DPD (Beckman AU) |
| | mg/dl | 1.73 | |
| Calcium | mmol/l | 2.18 | Cresolphthalein complexone |
| | mg/dl | 8.74 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Beckman Coulter AU Series®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Calcium | mmol/l | 2.25 | Ion selective electrode |
| | mg/dl | 9.02 | |
| | mmol/l | 2.22 | Arsenazo III |
| | mg/dl | 8.90 | |
| | mmol/l | 2.23 | NM-BAPTA |
| | mg/dl | 8.94 | |
| Chloride | mmol/l | 99.7 | Colorimetric |
| | mmol/l | 99.5 | ISE indirect |
| Cholesterol | mmol/l | 4.00 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 154 | |
| | mmol/l | 4.05 | Cholesterol Oxidase - IDMS |
| | mg/dl | 156 | |
| | mmol/l | 3.92 | Cholesterol Dehydrogenase |
| | mg/dl | 151 | |
| Cholinesterase | U/l | 5106 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 212 | CK-NAC (IFCC) 37°C |
| | U/l | 206 | Beckman CK-NAC (Extinction Coeff) 37°C |
| Creatinine | µmol/l | 129 | Alkaline picrate with deproteinization |
| | mg/dl | 1.45 | |
| | µmol/l | 132 | Alkaline picrate no deproteinization |
| | mg/dl | 1.49 | |
| | µmol/l | 138 | Enzymatic UV method |
| | mg/dl | 1.56 | |
| | µmol/l | 141 | Creatinine PAP method |
| | mg/dl | 1.59 | |
| | µmol/l | 132 | Jaffe rate blanked |
| | mg/dl | 1.50 | |
| | µmol/l | 160 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.81 | |
| | µmol/l | 145 | Jaffe rate blanked compensated (-18 µmol/l) |
| | mg/dl | 1.64 | |
| | µmol/l | 129 | IDMS traceable |
| | mg/dl | 1.46 | |
| gamma-GT | U/l | 55 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 54 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 55 | DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C |
| | U/l | 54 | Beckman Szasz (Extinction Coeff) 37°C |
| GLDH | U/l | 18 | Triethanolamine buffer 50 mmol 37°C |
| Glucose | mmol/l | 6.02 | GOD/02-Beckman method |
| | mg/dl | 108 | |
| | mmol/l | 6.06 | Glucose dehydrogenase |
| | mg/dl | 109 | |



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**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Glucose | mmol/l | 6.12 | Hexokinase |
| | mg/dl | 110 | |
| | mmol/l | 6.14 | Glucose oxidase |
| | mg/dl | 111 | |
| Iron | µmol/l | 21.1 | Colorimetric with ppt. |
| | µg/dl | 118 | |
| | µmol/l | 21.4 | Colorimetric without ppt. |
| | µg/dl | 120 | |
| Lactate | mmol/l | 1.52 | Colorimetric Lactate Oxidase |
| | mg/dl | 13.7 | |
| LD (LDH) | U/l | 199 | L->P 37°C |
| | U/l | 434 | P->L Scandinavian & Dutch 37°C |
| | U/l | 202 | L->P IFCC 37°C |
| | U/l | 203 | L to P Beckman (Extinction Coeff) 37°C |
| Lipase | U/l | 33 | Other Colorimetric 37°C |
| Lithium | mmol/l | 1.04 | Ion selective electrode |
| | mg/dl | 0.722 | |
| | mmol/l | 1.02 | Spectrophotometric |
| | mg/dl | 0.711 | |
| Magnesium | mmol/l | 0.878 | Xylidyl Blue |
| | mg/dl | 2.13 | |
| Phosphate Inorganic | mmol/l | 1.38 | Phosphomolybdate enzymatic |
| | mg/dl | 4.28 | |
| | mmol/l | 1.39 | Phosphomolybdate UV |
| | mg/dl | 4.31 | |
| | mmol/l | 1.41 | Beckman PHOSm (365nm) |
| | mg/dl | 4.37 | |
| Potassium | mmol/l | 3.98 | ISE method - indirect |
| Protein Total | g/l | 57.4 | Biuret reaction end point |
| | g/dl | 5.74 | |
| | g/l | 57.5 | Biuret reaction kinetic |
| | g/dl | 5.75 | |
| Sodium | mmol/l | 142 | ISE method - indirect |
| TIBC | µmol/l | 40.4 | FE+UIBC(saturation with iron) |
| | µg/dl | 226 | |
| | µmol/l | 40.4 | Direct Colorimetric |
| | µg/dl | 226 | |
| | µmol/l | 37.7 | Calculated from Transferrin |
| | µg/dl | 211 | |
| Triglycerides | mmol/l | 1.06 | Lipase/GPO-PAP no correction |
| | mg/dl | 93.8 | |
| | mmol/l | 1.08 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 95.6 | |



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**Beckman Coulter AU Series®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Triglycerides | mmol/l | 1.04 | L/G Kinase EP. no correction |
| | mg/dl | 92.0 | |
| | mmol/l | 1.05 | L/G kinase EP. 0.11 mmol/l correction |
| | mg/dl | 92.9 | |
| | mmol/l | 1.06 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 93.8 | |
| UIBC | µmol/l | 19.5 | Direct Colorimetric |
| | µg/dl | 109 | |
| Urea | mmol/l | 7.74 | Beckman-Conductivity |
| | mg/dl | 46.5 | |
| | mmol/l | 7.81 | Urease end point |
| | mg/dl | 46.9 | |
| | mmol/l | 7.67 | Urease kinetic |
| | mg/dl | 46.1 | |
| | mmol/l | 7.67 | BUN |
| | mg/dl | 21.5 | |
| Uric Acid (Urate) | mmol/l | 0.353 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.93 | |
| | mmol/l | 0.349 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.86 | |
| | mmol/l | 0.353 | Spectrophotometric at 280-290 |
| | mg/dl | 5.93 | |
| | mmol/l | 0.352 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.91 | |
| Zinc | µmol/l | 21.4 | Colorimetric with deproteinisation |
| | µg/dl | 140 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Beckman DxC600/800® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 43.0 | Bromocresol Green |
| | g/dl | 4.30 | |
| | g/l | 44.2 | Bromocresol Purple |
| | g/dl | 4.42 | |
| Alkaline Phosphatase | U/l | 177 | AMP optimised to IFCC 37°C |
| | U/l | 171 | AMP non-optimised 37°C |
| ALT (GPT) | U/l | 37 | Tris buffer without P5P 37°C |
| Amylase Total | U/l | 93 | Beckman Coulter - blocked pNPG7 37°C |
| | U/l | 93 | Beckman Synchron AMY7 37°C |
| AST (GOT) | U/l | 33 | Tris buffer without P5P 37°C |
| Bicarbonate | mmol/l | 13.8 | Differential rate pH change |
| Bilirubin Direct | µmol/l | 13.6 | Diazo/ Sulphanilic Beckman DxC |
| | mg/dl | 0.796 | |
| Bilirubin Total | µmol/l | 29.6 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.73 | |
| Calcium | mmol/l | 2.14 | Ion selective electrode |
| | mg/dl | 8.58 | |
| | mmol/l | 2.11 | Arsenazo III |
| | mg/dl | 8.46 | |
| Chloride | mmol/l | 99.7 | ISE indirect |
| Cholesterol | mmol/l | 3.93 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 152 | |
| Cholinesterase | U/l | 5345 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 217 | CK-NAC (IFCC) 37°C |
| | U/l | 218 | Monothioglycerol 37°C |
| Creatinine | µmol/l | 131 | Alkaline picrate no deproteinization |
| | mg/dl | 1.48 | |
| | µmol/l | 134 | Jaffe rate blanked |
| | mg/dl | 1.51 | |
| | µmol/l | 130 | IDMS traceable |
| | mg/dl | 1.47 | |
| gamma-GT | U/l | 44 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 44 | Gamma glutamyl-4-nitroanilide 37°C |
| | U/l | 44 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| Glucose | mmol/l | 5.93 | GOD/02-Beckman method |
| | mg/dl | 107 | |
| | mmol/l | 5.89 | Hexokinase |
| | mg/dl | 106 | |
| | mmol/l | 5.84 | Oxygen electrode |
| | mg/dl | 105 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Beckman DxC600/800® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Glucose | mmol/l | 5.81 | Glucose oxidase |
| | mg/dl | 105 | |
| Iron | µmol/l | 20.5 | Colorimetric without ppt. |
| | µg/dl | 115 | |
| Lactate | mmol/l | 1.50 | Colorimetric Lactate Oxidase |
| | mg/dl | 13.5 | |
| LD (LDH) | U/l | 164 | L->P 37°C |
| | U/l | 538 | Pyruvate 1.4 mM - Beckman LD-P 37°C |
| | U/l | 238 | L->P IFCC 37°C |
| Lipase | U/l | 37 | Other Colorimetric 37°C |
| Lithium | mmol/l | 1.01 | Spectrophotometric |
| | mg/dl | 0.701 | |
| Magnesium | mmol/l | 0.853 | Calmagite |
| | mg/dl | 2.07 | |
| Phosphate Inorganic | mmol/l | 1.40 | Phosphomolybdate UV |
| | mg/dl | 4.34 | |
| Potassium | mmol/l | 3.91 | ISE method - indirect |
| Protein Total | g/l | 58.9 | Biuret reaction CX4/5/7 |
| | g/dl | 5.89 | |
| | g/l | 58.0 | Biuret reaction end point |
| | g/dl | 5.80 | |
| | g/l | 58.2 | Biuret reaction kinetic |
| | g/dl | 5.82 | |
| Sodium | mmol/l | 141 | ISE method - indirect |
| Triglycerides | mmol/l | 1.06 | Lipase/GPO-PAP no correction |
| | mg/dl | 93.8 | |
| | mmol/l | 1.10 | L/G Kinase EP. no correction |
| | mg/dl | 97.4 | |
| Urea | mmol/l | 7.39 | Beckman-Conductivity |
| | mg/dl | 44.4 | |
| | mmol/l | 7.77 | Urease kinetic |
| | mg/dl | 46.7 | |
| | mmol/l | 7.77 | BUN |
| | mg/dl | 21.8 | |
| Uric Acid (Urate) | mmol/l | 0.336 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.64 | |
| | mmol/l | 0.334 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.61 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**BIOSYSTEMS A15 Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 41.9 | Bromocresol Green |
| | g/dl | 4.19 | |
| Alkaline Phosphatase | U/l | 173 | AMP optimised to IFCC 37°C |
| | U/l | 135 | AMP optimised to IFCC 30°C |
| | U/l | 111 | AMP optimised to IFCC 25°C |
| ALT (GPT) | U/l | 40 | Tris buffer without P5P 37°C |
| | U/l | 30 | Tris buffer without P5P 30°C |
| | U/l | 23 | Tris buffer without P5P 25°C |
| AST (GOT) | U/l | 38 | Tris buffer without P5P 37°C |
| | U/l | 26 | Tris buffer without P5P 30°C |
| | U/l | 18 | Tris buffer without P5P 25°C |
| Bilirubin Total | µmol/l | 27.2 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.59 | |
| Calcium | mmol/l | 2.19 | Arsenazo III |
| | mg/dl | 8.78 | |
| Cholesterol | mmol/l | 3.99 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 154 | |
| Creatinine | µmol/l | 130 | Alkaline picrate no deproteinization |
| | mg/dl | 1.47 | |
| | µmol/l | 131 | Jaffe rate blanked |
| | mg/dl | 1.48 | |
| gamma-GT | U/l | 54 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 43 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 33 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.05 | Glucose oxidase |
| | mg/dl | 109 | |
| Magnesium | mmol/l | 0.878 | Xylidyl Blue |
| | mg/dl | 2.13 | |
| Protein Total | g/l | 58.5 | Biuret reaction end point |
| | g/dl | 5.85 | |
| Triglycerides | mmol/l | 1.09 | Lipase/GPO-PAP no correction |
| | mg/dl | 96.5 | |
| Urea | mmol/l | 6.63 | Urease end point |
| | mg/dl | 39.8 | |
| | mmol/l | 7.14 | Urease kinetic |
| | mg/dl | 42.9 | |
| | mmol/l | 7.14 | BUN |
| | mg/dl | 20.0 | |
| Uric Acid (Urate) | mmol/l | 0.352 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.91 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**BIOSYSTEMS A15 Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Uric Acid (Urate) | mmol/l | 0.345 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.80 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**BIOSYSTEMS A25 Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 42.4 | Bromocresol Green |
| | g/dl | 4.24 | |
| ALT (GPT) | U/l | 40 | Tris buffer without P5P 37°C |
| | U/l | 30 | Tris buffer without P5P 30°C |
| | U/l | 23 | Tris buffer without P5P 25°C |
| AST (GOT) | U/l | 38 | Tris buffer without P5P 37°C |
| | U/l | 26 | Tris buffer without P5P 30°C |
| | U/l | 18 | Tris buffer without P5P 25°C |
| Calcium | mmol/l | 2.11 | Arsenazo III |
| | mg/dl | 8.46 | |
| Cholesterol | mmol/l | 4.00 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 154 | |
| Cholinesterase | U/l | 4864 | Colorimetric Butyrylthiocholine 37°C |
| Creatinine | µmol/l | 130 | Alkaline picrate no deproteinization |
| | mg/dl | 1.47 | |
| gamma-GT | U/l | 49 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 39 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 30 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| | U/l | 54 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 43 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 33 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.16 | Glucose oxidase |
| | mg/dl | 111 | |
| Protein Total | g/l | 58.7 | Biuret reaction end point |
| | g/dl | 5.87 | |
| Triglycerides | mmol/l | 1.08 | Lipase/GPO-PAP no correction |
| | mg/dl | 95.6 | |
| Urea | mmol/l | 7.12 | Urease end point |
| | mg/dl | 42.8 | |
| | mmol/l | 7.05 | Urease kinetic |
| | mg/dl | 42.4 | |
| | mmol/l | 7.05 | BUN |
| | mg/dl | 19.8 | |
| Uric Acid (Urate) | mmol/l | 0.349 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.86 | |
| | mmol/l | 0.352 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.91 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Biotechnica/Wiener BT and CB Series Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 40.9 | Bromocresol Green |
| | g/dl | 4.09 | |
| Alkaline Phosphatase | U/l | 272 | Diethanolamine buffer DEA 37°C |
| | U/l | 212 | Diethanolamine buffer DEA 30°C |
| | U/l | 174 | Diethanolamine buffer DEA 25°C |
| | U/l | 163 | AMP optimised to IFCC 37°C |
| | U/l | 127 | AMP optimised to IFCC 30°C |
| | U/l | 104 | AMP optimised to IFCC 25°C |
| ALT (GPT) | U/l | 39 | Tris buffer without P5P 37°C |
| | U/l | 29 | Tris buffer without P5P 30°C |
| | U/l | 22 | Tris buffer without P5P 25°C |
| AST (GOT) | U/l | 36 | Tris buffer without P5P 37°C |
| | U/l | 24 | Tris buffer without P5P 30°C |
| | U/l | 17 | Tris buffer without P5P 25°C |
| Bilirubin Direct | µmol/l | 15.6 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 0.913 | |
| Bilirubin Total | µmol/l | 27.3 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.60 | |
| | µmol/l | 23.5 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.37 | |
| Calcium | mmol/l | 2.15 | Cresolphthalein complexone |
| | mg/dl | 8.62 | |
| | mmol/l | 2.27 | Arsenazo III |
| | mg/dl | 9.10 | |
| Chloride | mmol/l | 104 | Colorimetric |
| Cholesterol | mmol/l | 3.96 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 153 | |
| | mmol/l | 4.09 | Cholesterol Oxidase - IDMS |
| | mg/dl | 158 | |
| Cholinesterase | U/l | 5243 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 207 | CK-NAC (IFCC) 37°C |
| | U/l | 130 | CK-NAC (IFCC) 30°C |
| | U/l | 88 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 132 | Alkaline picrate no deproteinization |
| | mg/dl | 1.49 | |
| | µmol/l | 134 | Jaffe rate blanked |
| | mg/dl | 1.52 | |
| gamma-GT | U/l | 53 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 42 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 33 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Biotechnica/Wiener BT and CB Series Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| gamma-GT | U/l | 51 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 40 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 31 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.00 | Glucose oxidase |
| | mg/dl | 108 | |
| Iron | µmol/l | 19.7 | Colorimetric with ppt. |
| | µg/dl | 110 | |
| | µmol/l | 20.7 | Colorimetric without ppt. |
| | µg/dl | 116 | |
| LD (LDH) | U/l | 357 | P->L Scandinavian & Dutch 37°C |
| | U/l | 258 | P->L Scandinavian & Dutch 30°C |
| | U/l | 181 | P->L Scandinavian & Dutch 25°C |
| | U/l | 371 | P->L German methods 37°C |
| | U/l | 268 | P->L German methods 30°C |
| | U/l | 188 | P->L German methods 25°C |
| | U/l | 389 | P->L SFBC 37°C |
| | U/l | 281 | P->L SFBC 30°C |
| | U/l | 197 | P->L SFBC 25°C |
| Magnesium | mmol/l | 0.885 | Xylidyl Blue |
| | mg/dl | 2.15 | |
| Phosphate Inorganic | mmol/l | 1.44 | Phosphomolybdate UV |
| | mg/dl | 4.46 | |
| Potassium | mmol/l | 3.89 | ISE method - direct |
| Protein Total | g/l | 59.4 | Biuret reaction end point |
| | g/dl | 5.94 | |
| Sodium | mmol/l | 139 | ISE method - direct |
| Triglycerides | mmol/l | 1.05 | Lipase/GPO-PAP no correction |
| | mg/dl | 92.9 | |
| Urea | mmol/l | 7.47 | Urease end point |
| | mg/dl | 44.9 | |
| | mmol/l | 7.81 | Urease kinetic |
| | mg/dl | 46.9 | |
| | mmol/l | 7.81 | BUN |
| | mg/dl | 21.9 | |
| Uric Acid (Urate) | mmol/l | 0.340 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.71 | |
| | mmol/l | 0.330 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.54 | |
| | mmol/l | 0.358 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 6.01 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**COBAS INTEGRA® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 43.4 | Bromocresol Green |
| | g/dl | 4.34 | |
| | g/l | 44.3 | Bromocresol Purple |
| | g/dl | 4.43 | |
| | g/l | 42.1 | Turbidimetric Assays |
| | g/dl | 4.21 | |
| Alkaline Phosphatase | U/l | 147 | Roche Integra AMP buffer 37°C |
| | U/l | 115 | Roche Integra AMP buffer 30°C |
| | U/l | 94 | Roche Integra AMP buffer 25°C |
| | U/l | 146 | AMP optimised to IFCC 37°C |
| | U/l | 114 | AMP optimised to IFCC 30°C |
| | U/l | 93 | AMP optimised to IFCC 25°C |
| | U/l | 143 | Colorimetric 37°C |
| | U/l | 111 | Colorimetric 30°C |
| | U/l | 91 | Colorimetric 25°C |
| ALT (GPT) | U/l | 35 | Tris buffer without P5P 37°C |
| | U/l | 26 | Tris buffer without P5P 30°C |
| | U/l | 20 | Tris buffer without P5P 25°C |
| Amylase Pancreatic | U/l | 70 | Roche EPS Liquid 37°C |
| Amylase Total | U/l | 89 | Roche Integra 2-chloro-pNPG7 37°C |
| | U/l | 89 | Roche liquid stable pNPG7 37°C |
| AST (GOT) | U/l | 33 | Tris buffer without P5P 37°C |
| | U/l | 22 | Tris buffer without P5P 30°C |
| | U/l | 16 | Tris buffer without P5P 25°C |
| Bicarbonate | mmol/l | 14.0 | Enzymatic |
| Bilirubin Direct | µmol/l | 17.9 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.05 | |
| | µmol/l | 18.2 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.06 | |
| | µmol/l | 18.1 | Roche JG factored |
| | mg/dl | 1.06 | |
| | µmol/l | 18.2 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.07 | |
| Bilirubin Total | µmol/l | 24.1 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.41 | |
| | µmol/l | 24.3 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.42 | |
| | µmol/l | 24.5 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.43 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**COBAS INTEGRA® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Bilirubin Total | µmol/l | 24.3 | Diazonium ion |
| | mg/dl | 1.42 | |
| Calcium | mmol/l | 2.17 | Cresolphthalein complexone |
| | mg/dl | 8.70 | |
| | mmol/l | 2.16 | Arsenazo III |
| | mg/dl | 8.66 | |
| | mmol/l | 2.17 | NM-BAPTA |
| | mg/dl | 8.70 | |
| Chloride | mmol/l | 100 | ISE indirect |
| Cholesterol | mmol/l | 3.86 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 149 | |
| | mmol/l | 3.84 | Cholesterol Oxidase - IDMS |
| | mg/dl | 148 | |
| CK Total | U/l | 198 | CK-NAC serum start (DGKC) 37°C |
| | U/l | 124 | CK-NAC serum start (DGKC) 30°C |
| | U/l | 84 | CK-NAC serum start (DGKC) 25°C |
| | U/l | 195 | CK-NAC substrate start (DGKC) 37°C |
| | U/l | 122 | CK-NAC substrate start (DGKC) 30°C |
| | U/l | 83 | CK-NAC substrate start (DGKC) 25°C |
| | U/l | 197 | CK-NAC (IFCC) 37°C |
| | U/l | 123 | CK-NAC (IFCC) 30°C |
| | U/l | 84 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 130 | Alkaline picrate with deproteinization |
| | mg/dl | 1.47 | |
| | µmol/l | 129 | Alkaline picrate no deproteinization |
| | mg/dl | 1.46 | |
| | µmol/l | 134 | Enzymatic UV method |
| | mg/dl | 1.52 | |
| | µmol/l | 132 | Roche Creatinine Plus |
| | mg/dl | 1.49 | |
| | µmol/l | 131 | Jaffe rate blanked |
| | mg/dl | 1.48 | |
| | µmol/l | 156 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.76 | |
| | µmol/l | 148 | Jaffe rate blanked compensated (-18 µmol/l) |
| | mg/dl | 1.67 | |
| | µmol/l | 128 | IDMS traceable |
| | mg/dl | 1.44 | |
| gamma-GT | U/l | 50 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 39 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 31 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| | U/l | 53 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 42 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 33 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**COBAS INTEGRA® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Glucose | mmol/l | 6.15 | Hexokinase |
| | mg/dl | 111 | |
| | mmol/l | 6.08 | Glucose oxidase |
| | mg/dl | 110 | |
| Iron | µmol/l | 22.1 | Colorimetric with ppt. |
| | µg/dl | 123 | |
| | µmol/l | 22.0 | Colorimetric without ppt. |
| | µg/dl | 123 | |
| Lactate | mmol/l | 1.62 | Colorimetric Lactate Oxidase |
| | mg/dl | 14.6 | |
| LD (LDH) | U/l | 209 | L->P 37°C |
| | U/l | 151 | L->P 30°C |
| | U/l | 106 | L->P 25°C |
| | U/l | 381 | P->L German methods 37°C |
| | U/l | 275 | P->L German methods 30°C |
| | U/l | 193 | P->L German methods 25°C |
| | U/l | 210 | L->P IFCC 37°C |
| | U/l | 152 | L->P IFCC 30°C |
| | U/l | 106 | L->P IFCC 25°C |
| Lipase | U/l | 29 | Roche Colorimetric 37°C |
| | U/l | 30 | Roche Turbidimetric with colipase 37°C |
| Lithium | mmol/l | 1.04 | Ion selective electrode |
| | mg/dl | 0.722 | |
| Magnesium | mmol/l | 0.895 | Calmagite |
| | mg/dl | 2.17 | |
| | mmol/l | 0.880 | Xylidyl Blue |
| | mg/dl | 2.14 | |
| | mmol/l | 0.889 | Chlorphosphonazo III |
| | mg/dl | 2.16 | |
| Phosphate Inorganic | mmol/l | 1.45 | Phosphomolybdate enzymatic |
| | mg/dl | 4.50 | |
| | mmol/l | 1.46 | Phosphomolybdate UV |
| | mg/dl | 4.53 | |
| Potassium | mmol/l | 3.98 | ISE method - indirect |
| Protein Total | g/l | 55.1 | Biuret reaction end point |
| | g/dl | 5.51 | |
| | g/l | 54.3 | Biuret reaction kinetic |
| | g/dl | 5.43 | |
| Sodium | mmol/l | 141 | ISE method - indirect |
| TIBC | µmol/l | 37.6 | FE+UIBC(saturation with iron) |
| | µg/dl | 210 | |
| Triglycerides | mmol/l | 1.08 | Lipase/GPO-PAP no correction |
| | mg/dl | 95.6 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**COBAS INTEGRA® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Triglycerides | mmol/l | 1.06 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 93.8 | |
| | mmol/l | 1.06 | L/G Kinase EP. no correction |
| | mg/dl | 93.8 | |
| | mmol/l | 1.08 | L/G kinase EP. 0.11 mmol/l correction |
| | mg/dl | 95.6 | |
| | mmol/l | 1.07 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 94.7 | |
| UIBC | µmol/l | 15.7 | Direct Colorimetric |
| | µg/dl | 87.8 | |
| Urea | mmol/l | 7.46 | Urease end point |
| | mg/dl | 44.8 | |
| | mmol/l | 7.22 | Urease kinetic |
| | mg/dl | 43.4 | |
| | mmol/l | 7.22 | BUN |
| | mg/dl | 20.3 | |
| Uric Acid (Urate) | mmol/l | 0.352 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.91 | |
| | mmol/l | 0.350 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.88 | |
| | mmol/l | 0.350 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.88 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Elitech/Vitalab Selectra Series Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 43.0 | Bromocresol Green |
| | g/dl | 4.30 | |
| Alkaline Phosphatase | U/l | 250 | Diethanolamine buffer DEA 37°C |
| ALT (GPT) | U/l | 39 | Tris buffer without P5P 37°C |
| AST (GOT) | U/l | 34 | Tris buffer without P5P 37°C |
| Bilirubin Total | µmol/l | 24.5 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.43 | |
| Calcium | mmol/l | 2.19 | Arsenazo III |
| | mg/dl | 8.78 | |
| Cholesterol | mmol/l | 3.91 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 151 | |
| Creatinine | µmol/l | 130 | Alkaline picrate no deproteinization |
| | mg/dl | 1.47 | |
| | µmol/l | 131 | Creatinine PAP method |
| | mg/dl | 1.48 | |
| | µmol/l | 133 | Jaffe rate blanked |
| | mg/dl | 1.50 | |
| gamma-GT | U/l | 54 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| Glucose | mmol/l | 6.25 | Hexokinase |
| | mg/dl | 113 | |
| | mmol/l | 6.22 | Glucose oxidase |
| | mg/dl | 112 | |
| Protein Total | g/l | 58.6 | Biuret reaction end point |
| | g/dl | 5.86 | |
| Triglycerides | mmol/l | 1.10 | Lipase/GPO-PAP no correction |
| | mg/dl | 97.4 | |
| | mmol/l | 1.14 | L/G Kinase EP. no correction |
| | mg/dl | 101 | |
| Urea | mmol/l | 7.41 | Urease kinetic |
| | mg/dl | 44.5 | |
| | mmol/l | 7.41 | BUN |
| | mg/dl | 20.8 | |
| Uric Acid (Urate) | mmol/l | 0.360 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 6.05 | |
| | mmol/l | 0.354 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.95 | |
| | mmol/l | 0.352 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.91 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**HITACHI SERIES® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Acid Phosphatase (Total) | U/l | 11.1 | 1-Naphthyl Phosphate substrate Kinetic 37°C |
| Albumin | g/l | 42.0 | Bromocresol Green |
| | g/dl | 4.20 | |
| Alkaline Phosphatase | U/l | 145 | AMP optimised to IFCC 37°C |
| | U/l | 113 | AMP optimised to IFCC 30°C |
| | U/l | 93 | AMP optimised to IFCC 25°C |
| | U/l | 178 | Randox AMP 37°C |
| | U/l | 139 | Randox AMP 30°C |
| | U/l | 114 | Randox AMP 25°C |
| ALT (GPT) | U/l | 39 | Tris buffer without P5P 37°C |
| | U/l | 29 | Tris buffer without P5P 30°C |
| | U/l | 22 | Tris buffer without P5P 25°C |
| Amylase Pancreatic | U/l | 79 | Randox Liquid Ethylidene pNPG7 37°C |
| Amylase Total | U/l | 87 | Roche liquid stable pNPG7 37°C |
| | U/l | 95 | Randox Liquid Ethylidene pNPG7 37°C |
| AST (GOT) | U/l | 36 | Tris buffer without P5P 37°C |
| | U/l | 24 | Tris buffer without P5P 30°C |
| | U/l | 17 | Tris buffer without P5P 25°C |
| | U/l | 42 | Phosphate buffer DGKC 37°C |
| | U/l | 28 | Phosphate buffer DGKC 30°C |
| | U/l | 20 | Phosphate buffer DGKC 25°C |
| Bile Acids | µmol/l | 24.8 | 5th Generation Colorimetric |
| Bilirubin Direct | µmol/l | 18.6 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.09 | |
| | µmol/l | 18.9 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.11 | |
| | µmol/l | 18.9 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.10 | |
| Bilirubin Total | µmol/l | 26.7 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.56 | |
| | µmol/l | 27.7 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.62 | |
| | µmol/l | 26.4 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.54 | |
| Calcium | mmol/l | 2.20 | Cresolphthalein complexone |
| | mg/dl | 8.82 | |
| | mmol/l | 2.16 | Arsenazo III |
| | mg/dl | 8.66 | |
| Chloride | mmol/l | 103 | Colorimetric |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**HITACHI SERIES® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Chloride | mmol/l | 97.4 | ISE indirect |
| Cholesterol | mmol/l | 3.98 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 154 | |
| Cholinesterase | U/l | 5040 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 208 | CK-NAC (IFCC) 37°C |
| | U/l | 130 | CK-NAC (IFCC) 30°C |
| | U/l | 88 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 133 | Alkaline picrate no deproteinization |
| | mg/dl | 1.50 | |
| | µmol/l | 133 | Jaffe rate blanked |
| | mg/dl | 1.50 | |
| | µmol/l | 162 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.83 | |
| gamma-GT | U/l | 51 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 40 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 31 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| | U/l | 52 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 41 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 32 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| | U/l | 58 | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 46 | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 36 | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| Glucose | mmol/l | 6.10 | Glucose oxidase |
| | mg/dl | 110 | |
| Iron | µmol/l | 21.4 | Colorimetric without ppt. |
| | µg/dl | 120 | |
| LD (LDH) | U/l | 388 | P->L German methods 37°C |
| | U/l | 280 | P->L German methods 30°C |
| | U/l | 197 | P->L German methods 25°C |
| | U/l | 210 | L->P IFCC 37°C |
| | U/l | 152 | L->P IFCC 30°C |
| | U/l | 106 | L->P IFCC 25°C |
| Magnesium | mmol/l | 0.861 | Xylidyl Blue |
| | mg/dl | 2.09 | |
| Phosphate Inorganic | mmol/l | 1.45 | Phosphomolybdate UV |
| | mg/dl | 4.50 | |
| Potassium | mmol/l | 4.03 | ISE method - indirect |
| Protein Total | g/l | 58.2 | Biuret reaction end point |
| | g/dl | 5.82 | |
| Sodium | mmol/l | 143 | ISE method - indirect |
| Triglycerides | mmol/l | 1.08 | Lipase/GPO-PAP no correction |
| | mg/dl | 95.6 | |
| | mmol/l | 1.11 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 98.2 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**HITACHI SERIES® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Triglycerides | mmol/l | 1.09 | L/G Kinase EP. no correction |
| | mg/dl | 96.5 | |
| | mmol/l | 1.13 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 100 | |
| Urea | mmol/l | 7.65 | Urease kinetic |
| | mg/dl | 46.0 | |
| | mmol/l | 7.65 | BUN |
| | mg/dl | 21.5 | |
| Uric Acid (Urate) | mmol/l | 0.352 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.91 | |
| | mmol/l | 0.349 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.86 | |
| | mmol/l | 0.348 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.85 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**ILab 600®/650®/Aries/Taurus Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 41.3 | Bromocresol Green |
| | g/dl | 4.13 | |
| Alkaline Phosphatase | U/l | 260 | Diethanolamine buffer DEA 37°C |
| | U/l | 203 | Diethanolamine buffer DEA 30°C |
| | U/l | 166 | Diethanolamine buffer DEA 25°C |
| | U/l | 172 | AMP optimised to IFCC 37°C |
| | U/l | 134 | AMP optimised to IFCC 30°C |
| | U/l | 110 | AMP optimised to IFCC 25°C |
| ALT (GPT) | U/l | 36 | Tris buffer without P5P 37°C |
| | U/l | 27 | Tris buffer without P5P 30°C |
| | U/l | 20 | Tris buffer without P5P 25°C |
| Amylase Total | U/l | 90 | I.L. 2-chloro-pNPG3 37°C |
| AST (GOT) | U/l | 34 | Tris buffer without P5P 37°C |
| | U/l | 23 | Tris buffer without P5P 30°C |
| | U/l | 16 | Tris buffer without P5P 25°C |
| Bilirubin Direct | µmol/l | 13.1 | Diazo with Sulphanilic Acid |
| | mg/dl | 0.766 | |
| Bilirubin Total | µmol/l | 28.0 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.64 | |
| | µmol/l | 27.6 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.62 | |
| Calcium | mmol/l | 2.15 | Cresolphthalein complexone |
| | mg/dl | 8.62 | |
| | mmol/l | 2.11 | Arsenazo III |
| | mg/dl | 8.46 | |
| Chloride | mmol/l | 97.4 | ISE indirect |
| Cholesterol | mmol/l | 3.93 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 152 | |
| Cholinesterase | U/l | 5335 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 183 | CK-NAC (IFCC) 37°C |
| | U/l | 115 | CK-NAC (IFCC) 30°C |
| | U/l | 78 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 134 | Alkaline picrate no deproteinization |
| | mg/dl | 1.51 | |
| | µmol/l | 135 | Creatinine PAP method |
| | mg/dl | 1.52 | |
| gamma-GT | U/l | 51 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 40 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 31 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**ILab 600®/650®/Aries/Taurus Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| gamma-GT | U/l | 51 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 40 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 31 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.10 | Hexokinase |
| | mg/dl | 110 | |
| | mmol/l | 6.08 | Glucose oxidase |
| | mg/dl | 110 | |
| Iron | µmol/l | 20.8 | Colorimetric without ppt. |
| | µg/dl | 116 | |
| LD (LDH) | U/l | 398 | P->L German methods 37°C |
| | U/l | 287 | P->L German methods 30°C |
| | U/l | 202 | P->L German methods 25°C |
| | U/l | 422 | P->L SFBC 37°C |
| | U/l | 305 | P->L SFBC 30°C |
| | U/l | 214 | P->L SFBC 25°C |
| Lipase | U/l | 34 | Other Colorimetric 37°C |
| Magnesium | mmol/l | 0.876 | Xylidyl Blue |
| | mg/dl | 2.13 | |
| | mmol/l | 0.874 | Enzymatic |
| | mg/dl | 2.12 | |
| Phosphate Inorganic | mmol/l | 1.38 | Phosphomolybdate UV |
| | mg/dl | 4.28 | |
| Potassium | mmol/l | 3.99 | ISE method - indirect |
| Protein Total | g/l | 57.2 | Biuret reaction end point |
| | g/dl | 5.72 | |
| Sodium | mmol/l | 142 | ISE method - indirect |
| Triglycerides | mmol/l | 1.09 | Lipase/GPO-PAP no correction |
| | mg/dl | 96.5 | |
| | mmol/l | 1.08 | L/G Kinase EP. no correction |
| | mg/dl | 95.6 | |
| Urea | mmol/l | 7.74 | Urease kinetic |
| | mg/dl | 46.5 | |
| | mmol/l | 7.74 | BUN |
| | mg/dl | 21.7 | |
| Uric Acid (Urate) | mmol/l | 0.329 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.53 | |
| | mmol/l | 0.334 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.61 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Konelab 20/30/60®/Thermo Scientific Indiko Plus®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 40.4 | Bromocresol Green |
| | g/dl | 4.04 | |
| Alkaline Phosphatase | U/l | 167 | AMP optimised to IFCC 37°C |
| | U/l | 130 | AMP optimised to IFCC 30°C |
| | U/l | 107 | AMP optimised to IFCC 25°C |
| ALT (GPT) | U/l | 40 | Tris buffer without P5P 37°C |
| | U/l | 30 | Tris buffer without P5P 30°C |
| | U/l | 23 | Tris buffer without P5P 25°C |
| AST (GOT) | U/l | 39 | Tris buffer without P5P 37°C |
| | U/l | 26 | Tris buffer without P5P 30°C |
| | U/l | 19 | Tris buffer without P5P 25°C |
| Bilirubin Direct | µmol/l | 17.1 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.00 | |
| Bilirubin Total | µmol/l | 26.5 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.55 | |
| | µmol/l | 25.6 | Nitrobenzenediazonium salt |
| | mg/dl | 1.50 | |
| Calcium | mmol/l | 2.17 | Arsenazo III |
| | mg/dl | 8.70 | |
| Chloride | mmol/l | 101 | ISE direct |
| Cholesterol | mmol/l | 3.93 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 152 | |
| | mmol/l | 3.95 | Cholesterol Oxidase - IDMS |
| | mg/dl | 152 | |
| CK Total | U/l | 215 | CK-NAC (IFCC) 37°C |
| | U/l | 135 | CK-NAC (IFCC) 30°C |
| | U/l | 91 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 131 | Alkaline picrate no deproteinization |
| | mg/dl | 1.48 | |
| | µmol/l | 139 | Enzymatic UV method |
| | mg/dl | 1.57 | |
| | µmol/l | 131 | Jaffe rate blanked |
| | mg/dl | 1.48 | |
| | µmol/l | 146 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.65 | |
| gamma-GT | U/l | 54 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 43 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 33 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.20 | Hexokinase |
| | mg/dl | 112 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Konelab 20/30/60®/Thermo Scientific Indiko Plus®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Glucose | mmol/l | 6.15 | Glucose oxidase |
| | mg/dl | 111 | |
| Iron | µmol/l | 21.8 | Colorimetric without ppt. |
| | µg/dl | 122 | |
| LD (LDH) | U/l | 214 | L->P IFCC 37°C |
| | U/l | 155 | L->P IFCC 30°C |
| | U/l | 108 | L->P IFCC 25°C |
| Magnesium | mmol/l | 0.897 | Xylidyl Blue |
| | mg/dl | 2.18 | |
| Phosphate Inorganic | mmol/l | 1.47 | Phosphomolybdate UV |
| | mg/dl | 4.56 | |
| Potassium | mmol/l | 3.91 | ISE method - direct |
| Protein Total | g/l | 57.8 | Biuret reaction end point |
| | g/dl | 5.78 | |
| Sodium | mmol/l | 139 | ISE method - direct |
| Triglycerides | mmol/l | 1.09 | Lipase/GPO-PAP no correction |
| | mg/dl | 96.5 | |
| Urea | mmol/l | 7.68 | Urease end point |
| | mg/dl | 46.2 | |
| | mmol/l | 7.40 | Urease kinetic |
| | mg/dl | 44.5 | |
| | mmol/l | 7.40 | BUN |
| | mg/dl | 20.8 | |
| Uric Acid (Urate) | mmol/l | 0.358 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 6.01 | |
| | mmol/l | 0.360 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 6.05 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**MEAN OF ALL INSTRUMENTS Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Acid Phosphatase (Total) | U/l | 11.1 | 1-Naphthyl Phosphate substrate Kinetic 37°C |
| Albumin | g/l | 41.4 | Bromocresol Green |
| | g/dl | 4.14 | |
| | g/l | 43.4 | Bromocresol Purple |
| | g/dl | 4.34 | |
| | g/l | 41.6 | Turbidimetric Assays |
| | g/dl | 4.16 | |
| Alkaline Phosphatase | U/l | 247 | Diethanolamine buffer DEA 37°C |
| | U/l | 192 | Diethanolamine buffer DEA 30°C |
| | U/l | 158 | Diethanolamine buffer DEA 25°C |
| | U/l | 175 | AMP optimised to IFCC 37°C |
| | U/l | 136 | AMP optimised to IFCC 30°C |
| | U/l | 112 | AMP optimised to IFCC 25°C |
| | U/l | 177 | AMP non-optimised 37°C |
| | U/l | 138 | AMP non-optimised 30°C |
| | U/l | 113 | AMP non-optimised 25°C |
| ALT (GPT) | U/l | 36 | Colorimetric 37°C |
| | U/l | 27 | Colorimetric 30°C |
| | U/l | 20 | Colorimetric 25°C |
| | U/l | 42 | Tris buffer with P5P 37°C |
| | U/l | 31 | Tris buffer with P5P 30°C |
| | U/l | 24 | Tris buffer with P5P 25°C |
| | U/l | 38 | Tris buffer without P5P 37°C |
| | U/l | 28 | Tris buffer without P5P 30°C |
| | U/l | 21 | Tris buffer without P5P 25°C |
| | U/l | 39 | Phosphate buffer DGKC 37°C |
| | U/l | 29 | Phosphate buffer DGKC 30°C |
| | U/l | 22 | Phosphate buffer DGKC 25°C |
| | U/l | 39 | Tris buffer with P5P NVKC 37°C |
| | U/l | 29 | Tris buffer with P5P NVKC 30°C |
| | U/l | 22 | Tris buffer with P5P NVKC 25°C |
| | U/l | 37 | Tris buffer SCE 37°C |
| | U/l | 27 | Tris buffer SCE 30°C |
| | U/l | 21 | Tris buffer SCE 25°C |
| Amylase Pancreatic | U/l | 69 | Immunoinhibition EPS substrate 37°C |
| | U/l | 68 | Roche EPS Liquid 37°C |
| | U/l | 79 | Randox Liquid Ethylidene pNPG7 37°C |
| Amylase Total | U/l | 93 | pNP Maltotrioside substrates 37°C |
| | U/l | 91 | Siemens - blocked pNPG7 37°C |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**MEAN OF ALL INSTRUMENTS Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Amylase Total | U/l | 73 | Randox Lyo. Ethylidene pNPG7 37°C |
| | U/l | 95 | Randox Liquid Ethylidene pNPG7 37°C |
| | U/l | 94 | Siemens - maltopenta/hexaoside 37°C |
| | U/l | 82 | Saccharogenic 37°C |
| | U/l | 85 | Siemens 2-chloro-pNP linked substrate 37°C |
| | U/l | 89 | Roche Integra 2-chloro-pNPG7 37°C |
| | U/l | 88 | Other Roche 2-chloro-pNPG7 37°C |
| | U/l | 87 | Roche liquid stable pNPG7 37°C |
| | U/l | 97 | Siemens 2-chloro-pNPG3 37°C |
| | U/l | 91 | Beckman Coulter - blocked pNPG7 37°C |
| | U/l | 93 | Beckman Synchron AMY7 37°C |
| | U/l | 91 | I.L. 2-chloro-pNPG3 37°C |
| | U/l | 100 | Abbott Architect IFCC Cal. 37°C |
| | U/l | 95 | Abbott Architect Non-IFCC Cal. 37°C |
| | U/l | 87 | Beckman CNPG3 (Extinction Coeff) 37°C |
| | U/l | 89 | BM/Roche Colorimetric pNPG7 37°C |
| AST (GOT) | U/l | 34 | Colorimetric 37°C |
| | U/l | 23 | Colorimetric 30°C |
| | U/l | 16 | Colorimetric 25°C |
| | U/l | 51 | Tris buffer with P5P 37°C |
| | U/l | 34 | Tris buffer with P5P 30°C |
| | U/l | 24 | Tris buffer with P5P 25°C |
| | U/l | 35 | Tris buffer without P5P 37°C |
| | U/l | 24 | Tris buffer without P5P 30°C |
| | U/l | 17 | Tris buffer without P5P 25°C |
| | U/l | 37 | Phosphate buffer DGKC 37°C |
| | U/l | 25 | Phosphate buffer DGKC 30°C |
| | U/l | 18 | Phosphate buffer DGKC 25°C |
| | U/l | 35 | Tris buffer with P5P NVKC 37°C |
| | U/l | 24 | Tris buffer with P5P NVKC 30°C |
| | U/l | 17 | Tris buffer with P5P NVKC 25°C |
| | U/l | 36 | Tris buffer SCE 37°C |
| | U/l | 24 | Tris buffer SCE 30°C |
| | U/l | 17 | Tris buffer SCE 25°C |
| Bicarbonate | mmol/l | 14.4 | Colorimetric |
| | mmol/l | 14.1 | Differential rate pH change |
| | mmol/l | 14.4 | Enzymatic |
| | mmol/l | 15.5 | Ion selective electrode |
| Bile Acids | µmol/l | 26.0 | 4th Generation Colorimetric |
| | µmol/l | 24.8 | 5th Generation Colorimetric |
| Bilirubin Direct | µmol/l | 18.8 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.10 | |
| | µmol/l | 17.4 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.02 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**MEAN OF ALL INSTRUMENTS Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Bilirubin Direct | µmol/l | 19.0 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.11 | |
| | µmol/l | 17.4 | Oxidation to Biliverdin/Vanadate |
| | mg/dl | 1.02 | |
| | µmol/l | 13.8 | Modified Jendrassik |
| | mg/dl | 0.810 | |
| Bilirubin Total | µmol/l | 29.7 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.74 | |
| | µmol/l | 27.7 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.62 | |
| | µmol/l | 26.4 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.54 | |
| | µmol/l | 25.7 | Nitrobenzenediazonium salt |
| | mg/dl | 1.50 | |
| | µmol/l | 25.1 | Diazonium ion |
| | mg/dl | 1.47 | |
| | µmol/l | 28.5 | Oxidation to Biliverdin/Vanadate |
| | mg/dl | 1.67 | |
| | µmol/l | 31.3 | Modified Jendrassik |
| | mg/dl | 1.83 | |
| Calcium | mmol/l | 2.15 | Cresolphthalein complexone |
| | mg/dl | 8.62 | |
| | mmol/l | 2.15 | Ion selective electrode |
| | mg/dl | 8.62 | |
| | mmol/l | 2.16 | Methylthymol blue |
| | mg/dl | 8.66 | |
| | mmol/l | 2.21 | Arsenazo III |
| | mg/dl | 8.86 | |
| | mmol/l | 2.16 | Phosphonazo |
| | mg/dl | 8.66 | |
| | mmol/l | 2.18 | NM-BAPTA |
| | mg/dl | 8.74 | |
| Chloride | mmol/l | 101 | Colorimetric |
| | mmol/l | 99.1 | ISE indirect |
| | mmol/l | 100 | ISE direct |
| | mmol/l | 110 | Optical Fluorescence |
| Cholesterol | mmol/l | 3.95 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 152 | |
| | mmol/l | 3.94 | Cholesterol Oxidase - IDMS |
| | mg/dl | 152 | |
| | mmol/l | 3.94 | Cholesterol Dehydrogenase |
| | mg/dl | 152 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**MEAN OF ALL INSTRUMENTS Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Cholinesterase | U/l | 5044 | Colorimetric Benzoylcholine 37°C |
| | U/l | 5213 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 203 | CK-NAC serum start (DGKC) 37°C |
| | U/l | 127 | CK-NAC serum start (DGKC) 30°C |
| | U/l | 86 | CK-NAC serum start (DGKC) 25°C |
| | U/l | 198 | CK-NAC substrate start (DGKC) 37°C |
| | U/l | 124 | CK-NAC substrate start (DGKC) 30°C |
| | U/l | 84 | CK-NAC substrate start (DGKC) 25°C |
| | U/l | 201 | CK-NAC (IFCC) 37°C |
| | U/l | 126 | CK-NAC (IFCC) 30°C |
| | U/l | 85 | CK-NAC (IFCC) 25°C |
| | U/l | 216 | Monothioglycerol 37°C |
| | U/l | 135 | Monothioglycerol 30°C |
| | U/l | 92 | Monothioglycerol 25°C |
| | U/l | 197 | Dithioerythritol (DTE) IFCC correlated 37°C |
| | U/l | 123 | Dithioerythritol (DTE) IFCC correlated 30°C |
| | U/l | 84 | Dithioerythritol (DTE) IFCC correlated 25°C |
| Copper | µmol/l | 18.4 | Atomic absorption |
| | µg/dl | 117 | |
| | µmol/l | 17.8 | Colorimetric |
| | µg/dl | 113 | |
| Creatinine | µmol/l | 132 | Alkaline picrate with deproteinization |
| | mg/dl | 1.49 | |
| | µmol/l | 133 | Alkaline picrate no deproteinization |
| | mg/dl | 1.51 | |
| | µmol/l | 134 | Enzymatic UV method |
| | mg/dl | 1.52 | |
| | µmol/l | 134 | Creatinine PAP method |
| | mg/dl | 1.51 | |
| | µmol/l | 132 | Jaffe rate blanked |
| | mg/dl | 1.50 | |
| | µmol/l | 160 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.81 | |
| | µmol/l | 148 | Jaffe rate blanked compensated (-18 µmol/l) |
| | mg/dl | 1.67 | |
| | µmol/l | 134 | IDMS traceable |
| | mg/dl | 1.51 | |
| gamma-GT | U/l | 51 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 40 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 31 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| | U/l | 48 | Gamma glutamyl-4-nitroanilide 37°C |
| | U/l | 38 | Gamma glutamyl-4-nitroanilide 30°C |
| | U/l | 30 | Gamma glutamyl-4-nitroanilide 25°C |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**MEAN OF ALL INSTRUMENTS Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| gamma-GT | U/l | 54 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 43 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 33 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| | U/l | 53 | DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C |
| | U/l | 42 | DCL gamma glutamyl-3-carboxy-4-nitroanilide 30°C |
| | U/l | 33 | DCL gamma glutamyl-3-carboxy-4-nitroanilide 25°C |
| | U/l | 58 | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 46 | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 36 | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| GLDH | U/l | 17 | Triethanolamine buffer 50 mmol 37°C |
| | U/l | 13 | Triethanolamine buffer 50 mmol 30°C |
| | U/l | 11 | Triethanolamine buffer 50 mmol 25°C |
| Glucose | mmol/l | 6.08 | Glucose dehydrogenase |
| | mg/dl | 110 | |
| | mmol/l | 6.08 | Hexokinase |
| | mg/dl | 110 | |
| | mmol/l | 6.00 | Oxygen electrode |
| | mg/dl | 108 | |
| | mmol/l | 6.07 | Glucose oxidase |
| | mg/dl | 109 | |
| Iron | µmol/l | 21.0 | Colorimetric with ppt. |
| | µg/dl | 117 | |
| | µmol/l | 21.3 | Colorimetric without ppt. |
| | µg/dl | 119 | |
| Lactate | mmol/l | 1.57 | Colorimetric Lactate Oxidase |
| | mg/dl | 14.1 | |
| | mmol/l | 1.57 | Enzymatic Electrode |
| | mg/dl | 14.1 | |
| | mmol/l | 1.56 | Ion selective electrode |
| | mg/dl | 14.1 | |
| | mmol/l | 1.57 | UV LDH |
| | mg/dl | 14.1 | |
| LAP | U/l | 16 | NAGEL 37°C |
| LD (LDH) | U/l | 192 | L->P 37°C |
| | U/l | 139 | L->P 30°C |
| | U/l | 97 | L->P 25°C |
| | U/l | 408 | P->L Scandinavian & Dutch 37°C |
| | U/l | 295 | P->L Scandinavian & Dutch 30°C |
| | U/l | 207 | P->L Scandinavian & Dutch 25°C |
| | U/l | 393 | P->L German methods 37°C |
| | U/l | 284 | P->L German methods 30°C |
| | U/l | 199 | P->L German methods 25°C |
| | U/l | 392 | P->L SFBC 37°C |
| | U/l | 283 | P->L SFBC 30°C |
| | U/l | 199 | P->L SFBC 25°C |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**MEAN OF ALL INSTRUMENTS Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| LD (LDH) | U/l | 202 | L->P IFCC 37°C |
| | U/l | 146 | L->P IFCC 30°C |
| | U/l | 102 | L->P IFCC 25°C |
| Lipase | U/l | 34 | Other Colorimetric 37°C |
| | U/l | 28 | Roche Colorimetric 37°C |
| | U/l | 39 | Randox Colorimetric 37°C |
| Lithium | mmol/l | 1.03 | Ion selective electrode |
| | mg/dl | 0.716 | |
| | mmol/l | 1.05 | Spectrophotometric |
| | mg/dl | 0.726 | |
| Magnesium | mmol/l | 0.845 | Arsenazo III |
| | mg/dl | 2.05 | |
| | mmol/l | 0.864 | Atomic absorption |
| | mg/dl | 2.10 | |
| | mmol/l | 0.852 | Calmagite |
| | mg/dl | 2.07 | |
| | mmol/l | 0.873 | Xylidyl Blue |
| | mg/dl | 2.12 | |
| | mmol/l | 0.847 | Methylthymol blue |
| | mg/dl | 2.06 | |
| | mmol/l | 0.873 | Chlorphosphonazo III |
| | mg/dl | 2.12 | |
| | mmol/l | 0.851 | Enzymatic |
| | mg/dl | 2.07 | |
| Osmolality | mOsm/kg | 293 | Calculated |
| | mOsm/kg | 312 | Freezing point depression |
| Phosphate Inorganic | mmol/l | 1.42 | Phosphomolybdate enzymatic |
| | mg/dl | 4.40 | |
| | mmol/l | 1.42 | Phosphomolybdate UV |
| | mg/dl | 4.40 | |
| Potassium | mmol/l | 3.94 | Enzymatic |
| | mmol/l | 3.99 | Flame photometry |
| | mmol/l | 3.94 | ISE method - direct |
| | mmol/l | 3.99 | ISE method - indirect |
| | mmol/l | 3.95 | Optical Fluorescence |
| | mmol/l | 3.86 | Colorimetric |
| Protein Total | g/l | 57.9 | Biuret reaction end point |
| | g/dl | 5.79 | |
| | g/l | 58.0 | Biuret reaction kinetic |
| | g/dl | 5.80 | |
| Sodium | mmol/l | 145 | Enzymatic |



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## CALIBRATION SERUM LEVEL 2 (CAL 2)

**MEAN OF ALL INSTRUMENTS Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Sodium | mmol/l | 142 | Flame photometry |
| | mmol/l | 140 | ISE method - direct |
| | mmol/l | 142 | ISE method - indirect |
| | mmol/l | 139 | Optical Fluorescence |
| | mmol/l | 141 | Colorimetric |
| TIBC | µmol/l | 36.0 | Removal of excess free iron |
| | µg/dl | 201 | |
| | µmol/l | 37.6 | FE+UIBC(saturation with iron) |
| | µg/dl | 210 | |
| | µmol/l | 38.4 | Direct Colorimetric |
| | µg/dl | 215 | |
| | µmol/l | 40.2 | Calculated from Transferrin |
| | µg/dl | 225 | |
| | µmol/l | 47.5 | Randox Direct |
| | µg/dl | 266 | |
| Triglycerides | mmol/l | 1.07 | Lipase/GPO-PAP no correction |
| | mg/dl | 94.7 | |
| | mmol/l | 1.08 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 95.6 | |
| | mmol/l | 1.06 | L/G Kinase EP. no correction |
| | mg/dl | 93.8 | |
| | mmol/l | 1.08 | L/G kinase EP. 0.11 mmol/l correction |
| | mg/dl | 95.6 | |
| | mmol/l | 1.07 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 94.7 | |
| Urea | mmol/l | 7.59 | Beckman-Conductivity |
| | mg/dl | 45.6 | |
| | mmol/l | 7.55 | Urease end point |
| | mg/dl | 45.4 | |
| | mmol/l | 7.52 | Urease kinetic |
| | mg/dl | 45.2 | |
| | mmol/l | 7.37 | Urease hypochlorite |
| | mg/dl | 44.3 | |
| | mmol/l | 7.52 | BUN |
| | mg/dl | 21.1 | |
| Uric Acid (Urate) | mmol/l | 0.346 | Uricase catalase 340nm |
| | mg/dl | 5.81 | |
| | mmol/l | 0.344 | Reduction methods |
| | mg/dl | 5.78 | |
| | mmol/l | 0.348 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.85 | |
| | mmol/l | 0.343 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.76 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**MEAN OF ALL INSTRUMENTS Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Uric Acid (Urate) | mmol/l | 0.349 | Spectrophotometric at 280-290 |
| | mg/dl | 5.86 | |
| | mmol/l | 0.344 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.78 | |
| Zinc | µmol/l | 21.4 | Atomic absorption |
| | µg/dl | 140 | |
| | µmol/l | 21.2 | Colorimetric with deproteinisation |
| | µg/dl | 138 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**MINDRAY BS-200/300/400 Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 41.6 | Bromocresol Green |
| | g/dl | 4.16 | |
| Alkaline Phosphatase | U/l | 180 | AMP optimised to IFCC 37°C |
| | U/l | 140 | AMP optimised to IFCC 30°C |
| | U/l | 115 | AMP optimised to IFCC 25°C |
| ALT (GPT) | U/l | 40 | Tris buffer without P5P 37°C |
| | U/l | 30 | Tris buffer without P5P 30°C |
| | U/l | 23 | Tris buffer without P5P 25°C |
| AST (GOT) | U/l | 36 | Tris buffer without P5P 37°C |
| | U/l | 24 | Tris buffer without P5P 30°C |
| | U/l | 17 | Tris buffer without P5P 25°C |
| Bicarbonate | mmol/l | 14.2 | Enzymatic |
| Bilirubin Direct | µmol/l | 18.8 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.10 | |
| | µmol/l | 18.5 | Oxidation to Biliverdin/Vanadate |
| | mg/dl | 1.08 | |
| Bilirubin Total | µmol/l | 26.4 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.54 | |
| | µmol/l | 28.0 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.64 | |
| | µmol/l | 26.4 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.54 | |
| | µmol/l | 26.7 | Oxidation to Biliverdin/Vanadate |
| | mg/dl | 1.56 | |
| Calcium | mmol/l | 2.29 | Cresolphthalein complexone |
| | mg/dl | 9.18 | |
| | mmol/l | 2.13 | Ion selective electrode |
| | mg/dl | 8.54 | |
| | mmol/l | 2.22 | Arsenazo III |
| | mg/dl | 8.90 | |
| Chloride | mmol/l | 98.7 | Colorimetric |
| | mmol/l | 98.9 | ISE direct |
| Cholesterol | mmol/l | 3.97 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 153 | |
| | mmol/l | 3.92 | Cholesterol Oxidase - IDMS |
| | mg/dl | 151 | |
| CK Total | U/l | 203 | CK-NAC (IFCC) 37°C |
| | U/l | 127 | CK-NAC (IFCC) 30°C |
| | U/l | 86 | CK-NAC (IFCC) 25°C |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**MINDRAY BS-200/300/400 Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Creatinine | µmol/l | 132 | Alkaline picrate with deproteinization |
| | mg/dl | 1.49 | |
| | µmol/l | 132 | Alkaline picrate no deproteinization |
| | mg/dl | 1.49 | |
| | µmol/l | 126 | Enzymatic UV method |
| | mg/dl | 1.42 | |
| | µmol/l | 132 | Creatinine PAP method |
| | mg/dl | 1.49 | |
| | µmol/l | 129 | Jaffe rate blanked |
| | mg/dl | 1.46 | |
| | µmol/l | 158 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.79 | |
| | µmol/l | 137 | Jaffe rate blanked compensated (-18 µmol/l) |
| | mg/dl | 1.55 | |
| gamma-GT | U/l | 53 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 42 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 33 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| | U/l | 54 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 43 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 33 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.11 | Hexokinase |
| | mg/dl | 110 | |
| | mmol/l | 6.15 | Glucose oxidase |
| | mg/dl | 111 | |
| Iron | µmol/l | 21.0 | Colorimetric without ppt. |
| | µg/dl | 117 | |
| Lactate | mmol/l | 1.52 | Colorimetric Lactate Oxidase |
| | mg/dl | 13.7 | |
| LD (LDH) | U/l | 390 | P->L German methods 37°C |
| | U/l | 282 | P->L German methods 30°C |
| | U/l | 198 | P->L German methods 25°C |
| | U/l | 207 | L->P IFCC 37°C |
| | U/l | 149 | L->P IFCC 30°C |
| | U/l | 105 | L->P IFCC 25°C |
| Magnesium | mmol/l | 0.905 | Xylidyl Blue |
| | mg/dl | 2.20 | |
| | mmol/l | 0.851 | Enzymatic |
| | mg/dl | 2.07 | |
| Phosphate Inorganic | mmol/l | 1.39 | Phosphomolybdate enzymatic |
| | mg/dl | 4.31 | |
| | mmol/l | 1.40 | Phosphomolybdate UV |
| | mg/dl | 4.34 | |
| Potassium | mmol/l | 3.91 | ISE method - direct |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**MINDRAY BS-200/300/400 Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Protein Total | g/l | 58.0 | Biuret reaction end point |
| | g/dl | 5.80 | |
| Sodium | mmol/l | 143 | ISE method - direct |
| Triglycerides | mmol/l | 1.07 | Lipase/GPO-PAP no correction |
| | mg/dl | 94.7 | |
| | mmol/l | 1.04 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 92.0 | |
| | mmol/l | 1.06 | L/G Kinase EP. no correction |
| | mg/dl | 93.8 | |
| | mmol/l | 1.09 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 96.5 | |
| Urea | mmol/l | 7.66 | Urease end point |
| | mg/dl | 46.0 | |
| | mmol/l | 7.55 | Urease kinetic |
| | mg/dl | 45.4 | |
| | mmol/l | 6.98 | Urease hypochlorite |
| | mg/dl | 41.9 | |
| | mmol/l | 7.55 | BUN |
| | mg/dl | 21.2 | |
| Uric Acid (Urate) | mmol/l | 0.343 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.76 | |
| | mmol/l | 0.344 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.78 | |
| | mmol/l | 0.343 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.76 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**PRESTIGE 24i Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 41.2 | Bromocresol Green |
| | g/dl | 4.12 | |
| Alkaline Phosphatase | U/l | 178 | AMP optimised to IFCC 37°C |
| | U/l | 139 | AMP optimised to IFCC 30°C |
| | U/l | 114 | AMP optimised to IFCC 25°C |
| ALT (GPT) | U/l | 39 | Tris buffer without P5P 37°C |
| | U/l | 29 | Tris buffer without P5P 30°C |
| | U/l | 22 | Tris buffer without P5P 25°C |
| Amylase Total | U/l | 95 | Randox Liquid Ethylidene pNPG7 37°C |
| AST (GOT) | U/l | 37 | Tris buffer without P5P 37°C |
| | U/l | 25 | Tris buffer without P5P 30°C |
| | U/l | 18 | Tris buffer without P5P 25°C |
| Bilirubin Direct | µmol/l | 19.1 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.11 | |
| | µmol/l | 16.9 | Oxidation to Biliverdin/Vanadate |
| | mg/dl | 0.987 | |
| Bilirubin Total | µmol/l | 27.2 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.59 | |
| | µmol/l | 28.7 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.68 | |
| | µmol/l | 28.4 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.66 | |
| | µmol/l | 29.0 | Oxidation to Biliverdin/Vanadate |
| | mg/dl | 1.69 | |
| Calcium | mmol/l | 2.09 | Cresolphthalein complexone |
| | mg/dl | 8.38 | |
| | mmol/l | 2.20 | Arsenazo III |
| | mg/dl | 8.82 | |
| Cholesterol | mmol/l | 4.06 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 157 | |
| CK Total | U/l | 211 | CK-NAC (IFCC) 37°C |
| | U/l | 132 | CK-NAC (IFCC) 30°C |
| | U/l | 90 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 132 | Alkaline picrate no deproteinization |
| | mg/dl | 1.49 | |
| | µmol/l | 129 | Jaffe rate blanked |
| | mg/dl | 1.46 | |
| gamma-GT | U/l | 56 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 44 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 35 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**PRESTIGE 24i Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| gamma-GT | U/l | 53 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 42 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 33 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.17 | Glucose oxidase |
| | mg/dl | 111 | |
| Iron | µmol/l | 20.6 | Colorimetric without ppt. |
| | µg/dl | 115 | |
| LD (LDH) | U/l | 413 | P->L German methods 37°C |
| | U/l | 298 | P->L German methods 30°C |
| | U/l | 209 | P->L German methods 25°C |
| Magnesium | mmol/l | 0.879 | Xylidyl Blue |
| | mg/dl | 2.14 | |
| Phosphate Inorganic | mmol/l | 1.42 | Phosphomolybdate UV |
| | mg/dl | 4.40 | |
| Protein Total | g/l | 57.8 | Biuret reaction end point |
| | g/dl | 5.78 | |
| Triglycerides | mmol/l | 1.06 | Lipase/GPO-PAP no correction |
| | mg/dl | 93.8 | |
| | mmol/l | 1.08 | L/G Kinase EP. no correction |
| | mg/dl | 95.6 | |
| Urea | mmol/l | 7.62 | Urease kinetic |
| | mg/dl | 45.8 | |
| | mmol/l | 7.62 | BUN |
| | mg/dl | 21.4 | |
| Uric Acid (Urate) | mmol/l | 0.342 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.75 | |
| | mmol/l | 0.345 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.80 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Roche Cobas 6000 c501 e601 Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Acid Phosphatase (Total) | U/l | 15.2 | 1-Naphthyl Phosphate substrate Kinetic 37°C |
| | U/l | 15.4 | Naphthyl phosphate substrate End point 37°C |
| Albumin | g/l | 43.1 | Bromocresol Green |
| | g/dl | 4.31 | |
| | g/l | 43.6 | Bromocresol Purple |
| | g/dl | 4.36 | |
| | g/l | 41.0 | Turbidimetric Assays |
| | g/dl | 4.10 | |
| Alkaline Phosphatase | U/l | 143 | Roche Integra AMP buffer 37°C |
| | U/l | 111 | Roche Integra AMP buffer 30°C |
| | U/l | 91 | Roche Integra AMP buffer 25°C |
| | U/l | 142 | AMP optimised to IFCC 37°C |
| | U/l | 111 | AMP optimised to IFCC 30°C |
| | U/l | 91 | AMP optimised to IFCC 25°C |
| | U/l | 143 | Colorimetric 37°C |
| | U/l | 111 | Colorimetric 30°C |
| | U/l | 91 | Colorimetric 25°C |
| ALT (GPT) | U/l | 37 | Tris buffer without P5P 37°C |
| | U/l | 27 | Tris buffer without P5P 30°C |
| | U/l | 21 | Tris buffer without P5P 25°C |
| Amylase Pancreatic | U/l | 67 | Roche EPS Liquid 37°C |
| Amylase Total | U/l | 86 | Randox Liquid Ethylidene pNPG7 37°C |
| | U/l | 86 | Roche Integra 2-chloro-pNPG7 37°C |
| | U/l | 87 | Other Roche 2-chloro-pNPG7 37°C |
| | U/l | 87 | Roche liquid stable pNPG7 37°C |
| | U/l | 87 | BM/Roche Colorimetric pNPG7 37°C |
| AST (GOT) | U/l | 34 | Tris buffer without P5P 37°C |
| | U/l | 23 | Tris buffer without P5P 30°C |
| | U/l | 16 | Tris buffer without P5P 25°C |
| Bicarbonate | mmol/l | 14.3 | Colorimetric |
| | mmol/l | 14.0 | Enzymatic |
| Bile Acids | µmol/l | 23.8 | Enzymatic Colorimetric |
| Bilirubin Direct | µmol/l | 18.6 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.09 | |
| | µmol/l | 18.6 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.09 | |
| | µmol/l | 18.4 | Roche JG factored |
| | mg/dl | 1.08 | |
| | µmol/l | 17.7 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.04 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Roche Cobas 6000 c501 e601 Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Bilirubin Total | µmol/l | 25.8 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.51 | |
| | µmol/l | 25.4 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.49 | |
| | µmol/l | 25.6 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.50 | |
| | µmol/l | 25.0 | Nitrobenzenediazonium salt |
| | mg/dl | 1.46 | |
| | µmol/l | 25.4 | Diazonium ion |
| | mg/dl | 1.49 | |
| Calcium | mmol/l | 2.18 | Cresolphthalein complexone |
| | mg/dl | 8.74 | |
| | mmol/l | 2.19 | Arsenazo III |
| | mg/dl | 8.78 | |
| | mmol/l | 2.19 | NM-BAPTA |
| | mg/dl | 8.78 | |
| Chloride | mmol/l | 96.5 | ISE indirect |
| Cholesterol | mmol/l | 3.86 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 149 | |
| | mmol/l | 3.85 | Cholesterol Oxidase - IDMS |
| | mg/dl | 149 | |
| Cholinesterase | U/l | 5087 | Colorimetric Benzoylcholine 37°C |
| | U/l | 5040 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 195 | CK-NAC serum start (DGKC) 37°C |
| | U/l | 122 | CK-NAC serum start (DGKC) 30°C |
| | U/l | 83 | CK-NAC serum start (DGKC) 25°C |
| | U/l | 196 | CK-NAC substrate start (DGKC) 37°C |
| | U/l | 123 | CK-NAC substrate start (DGKC) 30°C |
| | U/l | 83 | CK-NAC substrate start (DGKC) 25°C |
| | U/l | 198 | CK-NAC (IFCC) 37°C |
| | U/l | 124 | CK-NAC (IFCC) 30°C |
| | U/l | 84 | CK-NAC (IFCC) 25°C |
| Copper | µmol/l | 16.5 | Colorimetric |
| | µg/dl | 105 | |
| Creatinine | µmol/l | 130 | Alkaline picrate with deproteinization |
| | mg/dl | 1.47 | |
| | µmol/l | 134 | Alkaline picrate no deproteinization |
| | mg/dl | 1.51 | |
| | µmol/l | 137 | Enzymatic UV method |
| | mg/dl | 1.55 | |
| | µmol/l | 138 | Roche Creatinine Plus |
| | mg/dl | 1.56 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Roche Cobas 6000 c501 e601 Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Creatinine | µmol/l | 134 | Jaffe rate blanked |
| | mg/dl | 1.52 | |
| | µmol/l | 160 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.81 | |
| | µmol/l | 153 | Jaffe rate blanked compensated (-18 µmol/l) |
| | mg/dl | 1.73 | |
| | µmol/l | 135 | IDMS traceable |
| | mg/dl | 1.53 | |
| gamma-GT | U/l | 49 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 39 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 30 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| | U/l | 54 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 43 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 33 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.00 | Glucose dehydrogenase |
| | mg/dl | 108 | |
| | mmol/l | 6.09 | Hexokinase |
| | mg/dl | 110 | |
| | mmol/l | 6.06 | Glucose oxidase |
| | mg/dl | 109 | |
| Iron | µmol/l | 21.7 | Colorimetric with ppt. |
| | µg/dl | 121 | |
| | µmol/l | 21.7 | Colorimetric without ppt. |
| | µg/dl | 121 | |
| Lactate | mmol/l | 1.57 | Colorimetric Lactate Oxidase |
| | mg/dl | 14.1 | |
| LD (LDH) | U/l | 205 | L->P 37°C |
| | U/l | 148 | L->P 30°C |
| | U/l | 104 | L->P 25°C |
| | U/l | 384 | P->L Scandinavian & Dutch 37°C |
| | U/l | 277 | P->L Scandinavian & Dutch 30°C |
| | U/l | 195 | P->L Scandinavian & Dutch 25°C |
| | U/l | 389 | P->L German methods 37°C |
| | U/l | 281 | P->L German methods 30°C |
| | U/l | 197 | P->L German methods 25°C |
| | U/l | 204 | L->P IFCC 37°C |
| | U/l | 147 | L->P IFCC 30°C |
| | U/l | 103 | L->P IFCC 25°C |
| Lipase | U/l | 29 | Other Colorimetric 37°C |
| | U/l | 28 | Roche Colorimetric 37°C |
| | U/l | 29 | Roche Turbidimetric with colipase 37°C |
| Lithium | mmol/l | 1.03 | Ion selective electrode |
| | mg/dl | 0.718 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Roche Cobas 6000 c501 e601 Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Lithium | mmol/l | 1.04 | Spectrophotometric |
| | mg/dl | 0.722 | |
| Magnesium | mmol/l | 0.860 | Arsenazo III |
| | mg/dl | 2.09 | |
| | mmol/l | 0.866 | Atomic absorption |
| | mg/dl | 2.10 | |
| | mmol/l | 0.871 | Xylidyl Blue |
| | mg/dl | 2.12 | |
| | mmol/l | 0.868 | Chlorphosphonazo III |
| | mg/dl | 2.11 | |
| | mmol/l | 0.880 | Enzymatic |
| | mg/dl | 2.14 | |
| Phosphate Inorganic | mmol/l | 1.42 | Phosphomolybdate enzymatic |
| | mg/dl | 4.40 | |
| | mmol/l | 1.41 | Phosphomolybdate UV |
| | mg/dl | 4.37 | |
| Potassium | mmol/l | 4.05 | ISE method - indirect |
| Protein Total | g/l | 58.1 | Biuret reaction end point |
| | g/dl | 5.81 | |
| | g/l | 58.8 | Biuret reaction kinetic |
| | g/dl | 5.88 | |
| Sodium | mmol/l | 143 | ISE method - indirect |
| TIBC | µmol/l | 36.6 | FE+UIBC(saturation with iron) |
| | µg/dl | 205 | |
| | µmol/l | 36.5 | Direct Colorimetric |
| | µg/dl | 204 | |
| | µmol/l | 44.1 | Calculated from Transferrin |
| | µg/dl | 247 | |
| Triglycerides | mmol/l | 1.08 | Lipase/GPO-PAP no correction |
| | mg/dl | 95.6 | |
| | mmol/l | 1.09 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 96.5 | |
| | mmol/l | 1.08 | L/G Kinase EP. no correction |
| | mg/dl | 95.6 | |
| | mmol/l | 1.10 | L/G kinase EP. 0.11 mmol/l correction |
| | mg/dl | 97.4 | |
| | mmol/l | 1.09 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 96.5 | |
| UIBC | µmol/l | 14.6 | Direct Colorimetric |
| | µg/dl | 81.8 | |
| Urea | mmol/l | 7.38 | Urease end point |
| | mg/dl | 44.4 | |
| | mmol/l | 7.45 | Urease kinetic |
| | mg/dl | 44.8 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Roche Cobas 6000 c501 e601 Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Urea | mmol/l | 7.45 | BUN |
| | mg/dl | 20.9 | |
| Uric Acid (Urate) | mmol/l | 0.341 | Uricase catalase 340nm |
| | mg/dl | 5.73 | |
| | mmol/l | 0.340 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.71 | |
| | mmol/l | 0.339 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.70 | |
| | mmol/l | 0.338 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.68 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Roche Cobas C111® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 42.9 | Bromocresol Green |
| | g/dl | 4.29 | |
| | g/l | 41.4 | Bromocresol Purple |
| | g/dl | 4.14 | |
| Alkaline Phosphatase | U/l | 146 | Roche Integra AMP buffer 37°C |
| | U/l | 114 | Roche Integra AMP buffer 30°C |
| | U/l | 93 | Roche Integra AMP buffer 25°C |
| ALT (GPT) | U/l | 36 | Tris buffer without P5P 37°C |
| | U/l | 27 | Tris buffer without P5P 30°C |
| | U/l | 20 | Tris buffer without P5P 25°C |
| Amylase Total | U/l | 90 | Other Roche 2-chloro-pNPG7 37°C |
| | U/l | 90 | Roche liquid stable pNPG7 37°C |
| AST (GOT) | U/l | 34 | Tris buffer without P5P 37°C |
| | U/l | 23 | Tris buffer without P5P 30°C |
| | U/l | 16 | Tris buffer without P5P 25°C |
| Bilirubin Direct | µmol/l | 17.5 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.02 | |
| | µmol/l | 17.3 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.01 | |
| | µmol/l | 17.6 | Roche JG factored |
| | mg/dl | 1.03 | |
| | µmol/l | 17.3 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.01 | |
| Bilirubin Total | µmol/l | 25.0 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.46 | |
| | µmol/l | 24.3 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.42 | |
| | µmol/l | 24.3 | Diazonium ion |
| | mg/dl | 1.42 | |
| Calcium | mmol/l | 2.21 | Cresolphthalein complexone |
| | mg/dl | 8.86 | |
| | mmol/l | 2.28 | Arsenazo III |
| | mg/dl | 9.14 | |
| | mmol/l | 2.18 | NM-BAPTA |
| | mg/dl | 8.74 | |
| Chloride | mmol/l | 102 | ISE indirect |
| Cholesterol | mmol/l | 3.88 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 150 | |
| | mmol/l | 3.83 | Cholesterol Oxidase - IDMS |
| | mg/dl | 148 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Roche Cobas C111® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| CK Total | U/l | 195 | CK-NAC (IFCC) 37°C |
| | U/l | 122 | CK-NAC (IFCC) 30°C |
| | U/l | 83 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 130 | Roche Creatinine Plus |
| | mg/dl | 1.47 | |
| | µmol/l | 155 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.75 | |
| | µmol/l | 152 | Jaffe rate blanked compensated (-18 µmol/l) |
| | mg/dl | 1.72 | |
| gamma-GT | U/l | 52 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 41 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 32 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| | U/l | 51 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 40 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 31 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.19 | Hexokinase |
| | mg/dl | 112 | |
| | mmol/l | 6.21 | Glucose oxidase |
| | mg/dl | 112 | |
| Iron | µmol/l | 22.3 | Colorimetric without ppt. |
| | µg/dl | 125 | |
| LD (LDH) | U/l | 212 | L->P IFCC 37°C |
| | U/l | 153 | L->P IFCC 30°C |
| | U/l | 107 | L->P IFCC 25°C |
| Lipase | U/l | 29 | Roche Colorimetric 37°C |
| Magnesium | mmol/l | 0.889 | Xylidyl Blue |
| | mg/dl | 2.16 | |
| | mmol/l | 0.884 | Chlorphosphonazo III |
| | mg/dl | 2.15 | |
| Phosphate Inorganic | mmol/l | 1.46 | Phosphomolybdate enzymatic |
| | mg/dl | 4.53 | |
| | mmol/l | 1.46 | Phosphomolybdate UV |
| | mg/dl | 4.53 | |
| Potassium | mmol/l | 4.01 | ISE method - indirect |
| Protein Total | g/l | 58.5 | Biuret reaction end point |
| | g/dl | 5.85 | |
| Sodium | mmol/l | 142 | ISE method - indirect |
| Triglycerides | mmol/l | 1.08 | Lipase/GPO-PAP no correction |
| | mg/dl | 95.6 | |
| | mmol/l | 1.10 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 97.4 | |
| | mmol/l | 1.10 | L/G Kinase EP. no correction |
| | mg/dl | 97.4 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Roche Cobas C111® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Triglycerides | mmol/l | 1.09 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 96.5 | |
| Urea | mmol/l | 7.23 | Urease kinetic |
| | mg/dl | 43.5 | |
| | mmol/l | 7.23 | BUN |
| | mg/dl | 20.3 | |
| Uric Acid (Urate) | mmol/l | 0.346 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.81 | |
| | mmol/l | 0.348 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.85 | |
| | mmol/l | 0.340 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.71 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Roche Cobas C311® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 43.1 | Bromocresol Green |
| | g/dl | 4.31 | |
| | g/l | 42.9 | Bromocresol Purple |
| | g/dl | 4.29 | |
| Alkaline Phosphatase | U/l | 141 | Roche Integra AMP buffer 37°C |
| | U/l | 110 | Roche Integra AMP buffer 30°C |
| | U/l | 90 | Roche Integra AMP buffer 25°C |
| | U/l | 141 | AMP optimised to IFCC 37°C |
| | U/l | 110 | AMP optimised to IFCC 30°C |
| | U/l | 90 | AMP optimised to IFCC 25°C |
| ALT (GPT) | U/l | 37 | Tris buffer without P5P 37°C |
| | U/l | 27 | Tris buffer without P5P 30°C |
| | U/l | 21 | Tris buffer without P5P 25°C |
| Amylase Pancreatic | U/l | 84 | Immunoinhibition EPS substrate 37°C |
| | U/l | 68 | Roche EPS Liquid 37°C |
| Amylase Total | U/l | 88 | Roche Integra 2-chloro-pNPG7 37°C |
| | U/l | 87 | Other Roche 2-chloro-pNPG7 37°C |
| | U/l | 88 | Roche liquid stable pNPG7 37°C |
| | U/l | 88 | BM/Roche Colorimetric pNPG7 37°C |
| AST (GOT) | U/l | 34 | Tris buffer without P5P 37°C |
| | U/l | 23 | Tris buffer without P5P 30°C |
| | U/l | 16 | Tris buffer without P5P 25°C |
| Bicarbonate | mmol/l | 13.7 | Enzymatic |
| Bilirubin Direct | µmol/l | 18.9 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.11 | |
| | µmol/l | 18.6 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.09 | |
| | µmol/l | 18.8 | Roche JG factored |
| | mg/dl | 1.10 | |
| | µmol/l | 18.9 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.10 | |
| Bilirubin Total | µmol/l | 25.6 | Diazo with Dichloroaniline (DCA) |
| | mg/dl | 1.50 | |
| | µmol/l | 25.6 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.50 | |
| | µmol/l | 25.5 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.49 | |
| | µmol/l | 25.7 | Diazonium ion |
| | mg/dl | 1.50 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Roche Cobas C311® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Calcium | mmol/l | 2.19 | Cresolphthalein complexone |
| | mg/dl | 8.78 | |
| | mmol/l | 2.18 | Arsenazo III |
| | mg/dl | 8.74 | |
| | mmol/l | 2.18 | NM-BAPTA |
| | mg/dl | 8.74 | |
| Chloride | mmol/l | 96.6 | ISE indirect |
| Cholesterol | mmol/l | 3.88 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 150 | |
| | mmol/l | 3.88 | Cholesterol Oxidase - IDMS |
| | mg/dl | 150 | |
| Cholinesterase | U/l | 5087 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 200 | CK-NAC substrate start (DGKC) 37°C |
| | U/l | 125 | CK-NAC substrate start (DGKC) 30°C |
| | U/l | 85 | CK-NAC substrate start (DGKC) 25°C |
| | U/l | 197 | CK-NAC (IFCC) 37°C |
| | U/l | 123 | CK-NAC (IFCC) 30°C |
| | U/l | 84 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 137 | Alkaline picrate no deproteinization |
| | mg/dl | 1.55 | |
| | µmol/l | 137 | Roche Creatinine Plus |
| | mg/dl | 1.55 | |
| | µmol/l | 136 | Jaffe rate blanked |
| | mg/dl | 1.54 | |
| | µmol/l | 161 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.82 | |
| | µmol/l | 154 | Jaffe rate blanked compensated (-18 µmol/l) |
| | mg/dl | 1.74 | |
| gamma-GT | U/l | 49 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 39 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 30 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| | U/l | 55 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 43 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 34 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.09 | Hexokinase |
| | mg/dl | 110 | |
| | mmol/l | 6.15 | Glucose oxidase |
| | mg/dl | 111 | |
| Iron | µmol/l | 21.7 | Colorimetric with ppt. |
| | µg/dl | 121 | |
| | µmol/l | 21.6 | Colorimetric without ppt. |
| | µg/dl | 121 | |
| Lactate | mmol/l | 1.61 | Colorimetric Lactate Oxidase |
| | mg/dl | 14.5 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Roche Cobas C311® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| LD (LDH) | U/l | 209 | L->P 37°C |
| | U/l | 151 | L->P 30°C |
| | U/l | 106 | L->P 25°C |
| | U/l | 384 | P->L German methods 37°C |
| | U/l | 277 | P->L German methods 30°C |
| | U/l | 195 | P->L German methods 25°C |
| | U/l | 205 | L->P IFCC 37°C |
| | U/l | 148 | L->P IFCC 30°C |
| | U/l | 104 | L->P IFCC 25°C |
| Lipase | U/l | 28 | Roche Colorimetric 37°C |
| | U/l | 28 | Roche Turbidimetric with colipase 37°C |
| Lithium | mmol/l | 1.10 | Spectrophotometric |
| | mg/dl | 0.760 | |
| Magnesium | mmol/l | 0.860 | Atomic absorption |
| | mg/dl | 2.09 | |
| | mmol/l | 0.865 | Xylidyl Blue |
| | mg/dl | 2.10 | |
| | mmol/l | 0.864 | Chlorphosphonazo III |
| | mg/dl | 2.10 | |
| Phosphate Inorganic | mmol/l | 1.43 | Phosphomolybdate enzymatic |
| | mg/dl | 4.43 | |
| | mmol/l | 1.42 | Phosphomolybdate UV |
| | mg/dl | 4.40 | |
| Potassium | mmol/l | 4.05 | ISE method - indirect |
| Protein Total | g/l | 58.2 | Biuret reaction end point |
| | g/dl | 5.82 | |
| | g/l | 60.0 | Biuret reaction kinetic |
| | g/dl | 6.00 | |
| Sodium | mmol/l | 143 | ISE method - indirect |
| TIBC | µmol/l | 36.9 | FE+UIBC(saturation with iron) |
| | µg/dl | 206 | |
| Triglycerides | mmol/l | 1.09 | Lipase/GPO-PAP no correction |
| | mg/dl | 96.5 | |
| | mmol/l | 1.09 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 96.5 | |
| | mmol/l | 1.08 | L/G Kinase EP. no correction |
| | mg/dl | 95.6 | |
| | mmol/l | 1.08 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 95.6 | |
| UIBC | µmol/l | 15.9 | Direct Colorimetric |
| | µg/dl | 88.9 | |
| Urea | mmol/l | 7.58 | Urease end point |
| | mg/dl | 45.6 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Roche Cobas C311®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Urea | mmol/l | 7.55 | Urease kinetic |
| | mg/dl | 45.4 | |
| | mmol/l | 7.55 | BUN |
| | mg/dl | 21.2 | |
| Uric Acid (Urate) | mmol/l | 0.345 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.80 | |
| | mmol/l | 0.342 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.75 | |
| | mmol/l | 0.341 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.73 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Roche Cobas c701 / c702 / c711 Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 43.1 | Bromocresol Green |
| | g/dl | 4.31 | |
| Alkaline Phosphatase | U/l | 135 | Roche Integra AMP buffer 37°C |
| | U/l | 105 | Roche Integra AMP buffer 30°C |
| | U/l | 86 | Roche Integra AMP buffer 25°C |
| ALT (GPT) | U/l | 35 | Colorimetric 37°C |
| | U/l | 26 | Colorimetric 30°C |
| | U/l | 20 | Colorimetric 25°C |
| | U/l | 36 | Tris buffer without P5P 37°C |
| | U/l | 27 | Tris buffer without P5P 30°C |
| | U/l | 20 | Tris buffer without P5P 25°C |
| Amylase Pancreatic | U/l | 66 | Immunoinhibition EPS substrate 37°C |
| | U/l | 66 | Roche EPS Liquid 37°C |
| Amylase Total | U/l | 87 | Roche liquid stable pNPG7 37°C |
| AST (GOT) | U/l | 33 | Colorimetric 37°C |
| | U/l | 22 | Colorimetric 30°C |
| | U/l | 16 | Colorimetric 25°C |
| | U/l | 34 | Tris buffer without P5P 37°C |
| | U/l | 23 | Tris buffer without P5P 30°C |
| | U/l | 16 | Tris buffer without P5P 25°C |
| Bicarbonate | mmol/l | 13.9 | Enzymatic |
| Bilirubin Direct | µmol/l | 18.5 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.08 | |
| | µmol/l | 18.3 | Roche JG factored |
| | mg/dl | 1.07 | |
| Bilirubin Total | µmol/l | 26.8 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.57 | |
| | µmol/l | 24.8 | Dichlorophenyl Diazonium (DPD) |
| | mg/dl | 1.45 | |
| | µmol/l | 24.8 | Diazonium ion |
| | mg/dl | 1.45 | |
| Calcium | mmol/l | 2.18 | Cresolphthalein complexone |
| | mg/dl | 8.74 | |
| | mmol/l | 2.18 | NM-BAPTA |
| | mg/dl | 8.74 | |
| Chloride | mmol/l | 97.7 | ISE indirect |
| Cholesterol | mmol/l | 3.84 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 148 | |
| | mmol/l | 3.84 | Cholesterol Oxidase - IDMS |
| | mg/dl | 148 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Roche Cobas c701 / c702 / c711 Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Cholinesterase | U/l | 5013 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 188 | CK-NAC substrate start (DGKC) 37°C |
| | U/l | 118 | CK-NAC substrate start (DGKC) 30°C |
| | U/l | 80 | CK-NAC substrate start (DGKC) 25°C |
| | U/l | 195 | CK-NAC (IFCC) 37°C |
| | U/l | 122 | CK-NAC (IFCC) 30°C |
| | U/l | 83 | CK-NAC (IFCC) 25°C |
| Creatinine | µmol/l | 142 | Enzymatic UV method |
| | mg/dl | 1.61 | |
| | µmol/l | 139 | Roche Creatinine Plus |
| | mg/dl | 1.57 | |
| | µmol/l | 136 | Jaffe rate blanked |
| | mg/dl | 1.54 | |
| | µmol/l | 162 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.83 | |
| | µmol/l | 154 | Jaffe rate blanked compensated (-18 µmol/l) |
| | mg/dl | 1.74 | |
| | µmol/l | 137 | IDMS traceable |
| | mg/dl | 1.55 | |
| gamma-GT | U/l | 48 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 38 | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| | U/l | 30 | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| | U/l | 54 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 43 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
| | U/l | 33 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose | mmol/l | 6.13 | Hexokinase |
| | mg/dl | 110 | |
| Iron | µmol/l | 21.0 | Colorimetric without ppt. |
| | µg/dl | 117 | |
| Lactate | mmol/l | 1.59 | Colorimetric Lactate Oxidase |
| | mg/dl | 14.3 | |
| LD (LDH) | U/l | 205 | L->P IFCC 37°C |
| | U/l | 148 | L->P IFCC 30°C |
| | U/l | 104 | L->P IFCC 25°C |
| Lipase | U/l | 27 | Roche Colorimetric 37°C |
| Lithium | mmol/l | 1.05 | Spectrophotometric |
| | mg/dl | 0.729 | |
| Magnesium | mmol/l | 0.867 | Xylidyl Blue |
| | mg/dl | 2.11 | |
| | mmol/l | 0.878 | Chlorphosphonazo III |
| | mg/dl | 2.13 | |
| Phosphate Inorganic | mmol/l | 1.39 | Phosphomolybdate UV |
| | mg/dl | 4.31 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**Roche Cobas c701 / c702 / c711 Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Potassium | mmol/l | 4.05 | ISE method - indirect |
| Protein Total | g/l | 57.7 | Biuret reaction end point |
| | g/dl | 5.77 | |
| Sodium | mmol/l | 143 | ISE method - indirect |
| TIBC | µmol/l | 37.7 | FE+UIBC(saturation with iron) |
| | µg/dl | 211 | |
| Triglycerides | mmol/l | 1.08 | Lipase/GPO-PAP no correction |
| | mg/dl | 95.6 | |
| | mmol/l | 1.07 | Lipase/GPO-PAP 0.11mmol/l correction |
| | mg/dl | 94.7 | |
| | mmol/l | 1.10 | L/G kinase EP. 0.11 mmol/l correction |
| | mg/dl | 97.4 | |
| UIBC | µmol/l | 16.5 | Direct Colorimetric |
| | µg/dl | 92.5 | |
| Urea | mmol/l | 7.34 | Urease kinetic |
| | mg/dl | 44.1 | |
| | mmol/l | 7.34 | BUN |
| | mg/dl | 20.6 | |
| Uric Acid (Urate) | mmol/l | 0.335 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.63 | |
| | mmol/l | 0.335 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.63 | |
| | mmol/l | 0.333 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.59 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**RX SERIES®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Creatinine | µmol/l | 131 | Alkaline picrate no deproteinization |
| | mg/dl | 1.48 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**SIEMENS ATELLICA / ADVIA 1200/1650/1800/2400®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 40.6 | Bromocresol Green |
| | g/dl | 4.06 | |
| | g/l | 42.3 | Bromocresol Purple |
| | g/dl | 4.23 | |
| Alkaline Phosphatase | U/l | 213 | Diethanolamine buffer DEA 37°C |
| | U/l | 155 | AMP optimised to IFCC 37°C |
| ALT (GPT) | U/l | 42 | Tris buffer without P5P 37°C |
| Amylase Pancreatic | U/l | 68 | Immunoinhibition EPS substrate 37°C |
| Amylase Total | U/l | 92 | Siemens - blocked pNPG7 37°C |
| AST (GOT) | U/l | 39 | Tris buffer without P5P 37°C |
| Bicarbonate | mmol/l | 15.4 | Enzymatic |
| Bilirubin Direct | µmol/l | 17.1 | Oxidation to Biliverdin/Vanadate |
| | mg/dl | 1.00 | |
| Bilirubin Total | µmol/l | 29.1 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.70 | |
| | µmol/l | 28.8 | Oxidation to Biliverdin/Vanadate |
| | mg/dl | 1.68 | |
| Calcium | mmol/l | 2.14 | Cresolphthalein complexone |
| | mg/dl | 8.58 | |
| | mmol/l | 2.19 | Arsenazo III |
| | mg/dl | 8.78 | |
| Chloride | mmol/l | 101 | ISE indirect |
| Cholesterol | mmol/l | 3.95 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 152 | |
| Cholinesterase | U/l | 6165 | Colorimetric Butyrylthiocholine 37°C |
| CK Total | U/l | 192 | CK-NAC substrate start (DGKC) 37°C |
| | U/l | 207 | CK-NAC (IFCC) 37°C |
| Creatinine | µmol/l | 135 | Alkaline picrate no deproteinization |
| | mg/dl | 1.53 | |
| | µmol/l | 133 | Enzymatic UV method |
| | mg/dl | 1.50 | |
| | µmol/l | 131 | Creatinine PAP method |
| | mg/dl | 1.48 | |
| | µmol/l | 134 | Jaffe rate blanked |
| | mg/dl | 1.51 | |
| | µmol/l | 157 | Jaffe rate blanked comp. (-26 µmol/l) |
| | mg/dl | 1.77 | |
| | µmol/l | 154 | Jaffe rate blanked compensated (-18 µmol/l) |
| | mg/dl | 1.74 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**SIEMENS ATELLICA / ADVIA 1200/1650/1800/2400®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Creatinine | µmol/l | 130 | IDMS traceable |
| | mg/dl | 1.47 | |
| gamma-GT | U/l | 54 | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
| | U/l | 55 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| Glucose | mmol/l | 5.91 | Hexokinase |
| | mg/dl | 106 | |
| | mmol/l | 6.03 | Glucose oxidase |
| | mg/dl | 109 | |
| Iron | µmol/l | 20.9 | Colorimetric with ppt. |
| | µg/dl | 117 | |
| | µmol/l | 21.0 | Colorimetric without ppt. |
| | µg/dl | 117 | |
| Lactate | mmol/l | 1.46 | Colorimetric Lactate Oxidase |
| | mg/dl | 13.2 | |
| LD (LDH) | U/l | 202 | L->P 37°C |
| | U/l | 396 | P->L German methods 37°C |
| | U/l | 206 | L->P IFCC 37°C |
| Lipase | U/l | 38 | Other Colorimetric 37°C |
| Lithium | mmol/l | 1.07 | Spectrophotometric |
| | mg/dl | 0.740 | |
| Magnesium | mmol/l | 0.870 | Xylidyl Blue |
| | mg/dl | 2.11 | |
| Phosphate Inorganic | mmol/l | 1.43 | Phosphomolybdate UV |
| | mg/dl | 4.43 | |
| Potassium | mmol/l | 4.02 | ISE method - indirect |
| Protein Total | g/l | 56.2 | Biuret reaction end point |
| | g/dl | 5.62 | |
| | g/l | 58.4 | Biuret reaction kinetic |
| | g/dl | 5.84 | |
| Sodium | mmol/l | 143 | ISE method - indirect |
| TIBC | µmol/l | 48.0 | Removal of excess free iron |
| | µg/dl | 268 | |
| | µmol/l | 44.3 | FE+UIBC(saturation with iron) |
| | µg/dl | 248 | |
| | µmol/l | 45.2 | Direct Colorimetric |
| | µg/dl | 253 | |
| Triglycerides | mmol/l | 1.10 | Lipase/GPO-PAP no correction |
| | mg/dl | 97.4 | |
| | mmol/l | 1.13 | L/G Kinase EP. no correction |
| | mg/dl | 100 | |
| Urea | mmol/l | 7.89 | Urease end point |
| | mg/dl | 47.4 | |
| | mmol/l | 7.76 | Urease kinetic |
| | mg/dl | 46.6 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**SIEMENS ATELLICA / ADVIA 1200/1650/1800/2400®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Urea | mmol/l | 7.76 | BUN |
| | mg/dl | 21.8 | |
| Uric Acid (Urate) | mmol/l | 0.342 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.75 | |
| | mmol/l | 0.350 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.88 | |
| | mmol/l | 0.352 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.91 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**SIEMENS DIMENSION EXL® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 41.0 | Bromocresol Green |
| | g/dl | 4.10 | |
| | g/l | 43.5 | Bromocresol Purple |
| | g/dl | 4.35 | |
| Alkaline Phosphatase | U/l | 158 | Siemens Dimension AMP buffer 37°C |
| | U/l | 156 | AMP optimised to IFCC 37°C |
| ALT (GPT) | U/l | 45 | Tris buffer with P5P 37°C |
| | U/l | 45 | Siemens Dade Standard Non IFCC Correlated 37°C |
| Amylase Total | U/l | 97 | Siemens 2-chloro-pNPG3 37°C |
| AST (GOT) | U/l | 53 | Tris buffer with P5P 37°C |
| | U/l | 53 | Siemens Dade Standard Non IFCC Correlated 37°C |
| Bicarbonate | mmol/l | 15.2 | Enzymatic |
| Bilirubin Direct | µmol/l | 13.2 | Diazo/Sulphanilic Siemens Dimension |
| | mg/dl | 0.771 | |
| Bilirubin Total | µmol/l | 26.8 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.57 | |
| Calcium | mmol/l | 2.12 | Cresolphthalein complexone |
| | mg/dl | 8.50 | |
| Chloride | mmol/l | 99.3 | ISE indirect |
| Cholesterol | mmol/l | 3.64 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 141 | |
| | mmol/l | 3.62 | Dimension-Siemens reagents |
| | mg/dl | 140 | |
| Cholinesterase | U/l | 8914 | Colorimetric - Butyrythiochol. Dimension 37°C |
| CK Total | U/l | 197 | CK-NAC (IFCC) 37°C |
| Creatinine | µmol/l | 139 | Alkaline picrate no deproteinization |
| | mg/dl | 1.57 | |
| | µmol/l | 136 | Enzymatic UV method |
| | mg/dl | 1.54 | |
| | µmol/l | 136 | Creatinine PAP method |
| | mg/dl | 1.54 | |
| | µmol/l | 140 | Jaffe rate blanked |
| | mg/dl | 1.58 | |
| | µmol/l | 138 | IDMS traceable |
| | mg/dl | 1.56 | |
| gamma-GT | U/l | 59 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 68 | Siemens Dimension (non IFCC) 37°C |
| Glucose | mmol/l | 6.08 | Hexokinase |
| | mg/dl | 110 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**SIEMENS DIMENSION EXL® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Glucose | mmol/l | 6.08 | Oxygen electrode |
| | mg/dl | 110 | |
| Iron | µmol/l | 20.4 | Colorimetric with ppt. |
| | µg/dl | 114 | |
| | µmol/l | 20.4 | Colorimetric without ppt. |
| | µg/dl | 114 | |
| Lactate | mmol/l | 1.58 | UV LDH |
| | mg/dl | 14.2 | |
| LD (LDH) | U/l | 191 | L->P 37°C |
| | U/l | 190 | Siemens Dimension L-P Non IFCC 37°C |
| | U/l | 193 | L->P IFCC 37°C |
| Lipase | U/l | 129 | Colorimetric Siemens Dimension (LIPL Kit) 37°C |
| Magnesium | mmol/l | 0.847 | Methylthymol blue |
| | mg/dl | 2.06 | |
| Phosphate Inorganic | mmol/l | 1.49 | Phosphomolybdate enzymatic |
| | mg/dl | 4.62 | |
| | mmol/l | 1.47 | Phosphomolybdate UV |
| | mg/dl | 4.56 | |
| Potassium | mmol/l | 3.96 | ISE method - indirect |
| Protein Total | g/l | 59.7 | Biuret reaction end point |
| | g/dl | 5.97 | |
| Sodium | mmol/l | 142 | ISE method - indirect |
| TIBC | µmol/l | 31.9 | Removal of excess free iron |
| | µg/dl | 178 | |
| | µmol/l | 34.6 | FE+UIBC(saturation with iron) |
| | µg/dl | 193 | |
| | µmol/l | 36.0 | Direct Colorimetric |
| | µg/dl | 201 | |
| Triglycerides | mmol/l | 1.00 | Lipase/GPO-PAP no correction |
| | mg/dl | 88.5 | |
| | mmol/l | 1.01 | L/G Kinase EP. no correction |
| | mg/dl | 89.4 | |
| | mmol/l | 1.00 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 88.5 | |
| Urea | mmol/l | 7.85 | Urease end point |
| | mg/dl | 47.2 | |
| | mmol/l | 7.73 | Urease kinetic |
| | mg/dl | 46.5 | |
| | mmol/l | 7.73 | BUN |
| | mg/dl | 21.7 | |
| Uric Acid (Urate) | mmol/l | 0.346 | Uricase catalase 340nm |
| | mg/dl | 5.81 | |
| | mmol/l | 0.349 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.86 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**SIEMENS DIMENSION EXL®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Uric Acid (Urate) | mmol/l | 0.349 | Spectrophotometric at 280-290 |
| | mg/dl | 5.86 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**SIEMENS DIMENSION RxL/Max/Xpand® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 43.7 | Bromocresol Green |
| | g/dl | 4.37 | |
| | g/l | 43.2 | Bromocresol Purple |
| | g/dl | 4.32 | |
| Alkaline Phosphatase | U/l | 157 | Siemens Dimension AMP buffer 37°C |
| | U/l | 158 | AMP optimised to IFCC 37°C |
| ALT (GPT) | U/l | 45 | Tris buffer with P5P 37°C |
| | U/l | 45 | Siemens Dade Standard Non IFCC Correlated 37°C |
| Amylase Pancreatic | U/l | 69 | Immunoinhibition EPS substrate 37°C |
| Amylase Total | U/l | 101 | Siemens - maltopenta/hexaoside 37°C |
| | U/l | 97 | Siemens 2-chloro-pNPG3 37°C |
| AST (GOT) | U/l | 54 | Tris buffer with P5P 37°C |
| | U/l | 53 | Siemens Dade Standard Non IFCC Correlated 37°C |
| Bicarbonate | mmol/l | 15.7 | Enzymatic |
| Bilirubin Direct | µmol/l | 13.1 | Diazo/Sulphanilic Siemens Dimension |
| | mg/dl | 0.765 | |
| Bilirubin Total | µmol/l | 27.1 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.58 | |
| Calcium | mmol/l | 2.11 | Cresolphthalein complexone |
| | mg/dl | 8.46 | |
| | mmol/l | 1.99 | Arsenazo III |
| | mg/dl | 7.98 | |
| Chloride | mmol/l | 99.1 | ISE indirect |
| Cholesterol | mmol/l | 3.62 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 140 | |
| | mmol/l | 3.63 | Dimension-Siemens reagents |
| | mg/dl | 140 | |
| Cholinesterase | U/l | 9177 | Colorimetric - Butyrythiochol. Dimension 37°C |
| CK Total | U/l | 197 | CK-NAC (IFCC) 37°C |
| | U/l | 197 | Dithioerythritol (DTE) IFCC correlated 37°C |
| Creatinine | µmol/l | 137 | Alkaline picrate with deproteinization |
| | mg/dl | 1.54 | |
| | µmol/l | 140 | Alkaline picrate no deproteinization |
| | mg/dl | 1.59 | |
| | µmol/l | 135 | Enzymatic UV method |
| | mg/dl | 1.53 | |
| | µmol/l | 135 | Creatinine PAP method |
| | mg/dl | 1.52 | |
| | µmol/l | 140 | Jaffe rate blanked |
| | mg/dl | 1.59 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**SIEMENS DIMENSION RxL/Max/Xpand® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Creatinine | µmol/l | 139 | IDMS traceable |
| | mg/dl | 1.57 | |
| gamma-GT | U/l | 60 | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| | U/l | 66 | Siemens Dimension (non IFCC) 37°C |
| Glucose | mmol/l | 5.95 | Glucose dehydrogenase |
| | mg/dl | 107 | |
| | mmol/l | 6.15 | Hexokinase |
| | mg/dl | 111 | |
| Iron | µmol/l | 20.4 | Colorimetric with ppt. |
| | µg/dl | 114 | |
| | µmol/l | 20.4 | Colorimetric without ppt. |
| | µg/dl | 114 | |
| Lactate | mmol/l | 1.58 | Colorimetric Lactate Oxidase |
| | mg/dl | 14.2 | |
| | mmol/l | 1.55 | UV LDH |
| | mg/dl | 14.0 | |
| LD (LDH) | U/l | 190 | Siemens Dimension L-P Non IFCC 37°C |
| | U/l | 193 | L->P IFCC 37°C |
| Lipase | U/l | 129 | Colorimetric Siemens Dimension (LIPL Kit) 37°C |
| Lithium | mmol/l | 1.09 | Spectrophotometric |
| | mg/dl | 0.754 | |
| Magnesium | mmol/l | 0.842 | Methylthymol blue |
| | mg/dl | 2.05 | |
| Phosphate Inorganic | mmol/l | 1.45 | Phosphomolybdate enzymatic |
| | mg/dl | 4.50 | |
| | mmol/l | 1.46 | Phosphomolybdate UV |
| | mg/dl | 4.53 | |
| Potassium | mmol/l | 3.93 | ISE method - indirect |
| Protein Total | g/l | 59.5 | Biuret reaction end point |
| | g/dl | 5.95 | |
| Sodium | mmol/l | 141 | ISE method - indirect |
| TIBC | µmol/l | 35.2 | Removal of excess free iron |
| | µg/dl | 197 | |
| | µmol/l | 35.1 | FE+UIBC(saturation with iron) |
| | µg/dl | 196 | |
| | µmol/l | 35.3 | Direct Colorimetric |
| | µg/dl | 197 | |
| Triglycerides | mmol/l | 1.01 | Lipase/GPO-PAP no correction |
| | mg/dl | 89.4 | |
| | mmol/l | 1.00 | L/G Kinase EP. no correction |
| | mg/dl | 88.5 | |
| | mmol/l | 1.01 | Lipase/Glycerol Dehydrogenase |
| | mg/dl | 89.4 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**SIEMENS DIMENSION RxL/Max/Xpand®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Urea | mmol/l | 7.48 | Urease end point |
| | mg/dl | 45.0 | |
| | mmol/l | 7.68 | Urease kinetic |
| | mg/dl | 46.2 | |
| | mmol/l | 7.68 | BUN |
| | mg/dl | 21.6 | |
| Uric Acid (Urate) | mmol/l | 0.347 | Uricase catalase 340nm |
| | mg/dl | 5.83 | |
| | mmol/l | 0.345 | Uricase peroxidase with ascorbate oxidase |
| | mg/dl | 5.80 | |
| | mmol/l | 0.348 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.85 | |
| | mmol/l | 0.348 | Spectrophotometric at 280-290 |
| | mg/dl | 5.85 | |
| | mmol/l | 0.338 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
| | mg/dl | 5.68 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**SIEMENS DIMENSION Vista®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 44.2 | Bromocresol Purple |
| | g/dl | 4.42 | |
| Alkaline Phosphatase | U/l | 168 | Siemens Dimension AMP buffer 37°C |
| | U/l | 162 | AMP optimised to IFCC 37°C |
| ALT (GPT) | U/l | 44 | Tris buffer with P5P 37°C |
| Amylase Total | U/l | 96 | Siemens 2-chloro-pNPG3 37°C |
| AST (GOT) | U/l | 53 | Tris buffer with P5P 37°C |
| | U/l | 55 | Siemens Dade Standard Non IFCC Correlated 37°C |
| Bicarbonate | mmol/l | 15.8 | Enzymatic |
| Bilirubin Direct | µmol/l | 13.3 | Diazo/Sulphanilic Siemens Dimension |
| | mg/dl | 0.778 | |
| Bilirubin Total | µmol/l | 27.3 | Diazo with Sulphanilic Acid |
| | mg/dl | 1.60 | |
| Calcium | mmol/l | 2.12 | Cresolphthalein complexone |
| | mg/dl | 8.50 | |
| Chloride | mmol/l | 104 | ISE indirect |
| Cholesterol | mmol/l | 3.71 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 143 | |
| | mmol/l | 3.70 | Dimension-Siemens reagents |
| | mg/dl | 143 | |
| CK Total | U/l | 199 | CK-NAC (IFCC) 37°C |
| Creatinine | µmol/l | 140 | Alkaline picrate no deproteinization |
| | mg/dl | 1.58 | |
| gamma-GT | U/l | 66 | Siemens Dimension (non IFCC) 37°C |
| Glucose | mmol/l | 6.04 | Hexokinase |
| | mg/dl | 109 | |
| Iron | µmol/l | 21.1 | Colorimetric without ppt. |
| | µg/dl | 118 | |
| LD (LDH) | U/l | 195 | L->P IFCC 37°C |
| Lipase | U/l | 144 | Colorimetric Siemens Dimension (LIPL Kit) 37°C |
| Magnesium | mmol/l | 0.896 | Methylthymol blue |
| | mg/dl | 2.18 | |
| Phosphate Inorganic | mmol/l | 1.39 | Phosphomolybdate UV |
| | mg/dl | 4.31 | |
| Potassium | mmol/l | 3.96 | ISE method - indirect |
| Protein Total | g/l | 60.3 | Biuret reaction end point |
| | g/dl | 6.03 | |
| Sodium | mmol/l | 143 | ISE method - indirect |
| Triglycerides | mmol/l | 1.14 | Lipase/GPO-PAP no correction |
| | mg/dl | 101 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**SIEMENS DIMENSION Vista®  Lot. No. 1488UN  Cat. No. CAL2350**

**Size 20 x 5ml  Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Urea | mmol/l | 7.66 | Urease kinetic |
| | mg/dl | 46.0 | |
| | mmol/l | 7.66 | BUN |
| | mg/dl | 21.5 | |
| Uric Acid (Urate) | mmol/l | 0.350 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.88 | |



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# CALIBRATION SERUM LEVEL 2 (CAL 2)

**VITALAB FLEXOR® Lot. No. 1488UN Cat. No. CAL2350**

**Size 20 x 5ml Expiry 2023-04-28**

| Analyte | unit | Target | methods |
|---|---|---|---|
| Albumin | g/l | 41.5 | Bromocresol Green |
| | g/dl | 4.15 | |
| Alkaline Phosphatase | U/l | 253 | Diethanolamine buffer DEA 37°C |
| ALT (GPT) | U/l | 39 | Tris buffer without P5P 37°C |
| AST (GOT) | U/l | 34 | Tris buffer without P5P 37°C |
| Calcium | mmol/l | 2.17 | Arsenazo III |
| | mg/dl | 8.70 | |
| Cholesterol | mmol/l | 3.92 | Cholesterol Oxidase - Abell Kendall |
| | mg/dl | 151 | |
| Glucose | mmol/l | 6.27 | Glucose oxidase |
| | mg/dl | 113 | |
| Protein Total | g/l | 56.1 | Biuret reaction end point |
| | g/dl | 5.61 | |
| Triglycerides | mmol/l | 1.10 | Lipase/GPO-PAP no correction |
| | mg/dl | 97.4 | |
| Urea | mmol/l | 7.52 | Urease kinetic |
| | mg/dl | 45.2 | |
| | mmol/l | 7.52 | BUN |
| | mg/dl | 21.1 | |
| Uric Acid (Urate) | mmol/l | 0.347 | Uricase peroxidase no ascorbate oxidase |
| | mg/dl | 5.83 | |



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