# PRODUCT INFORMATION

IA3112 lot 1937EC

Please note that analyte CA19-9 in Immunoassay Premium Plus Lot 1937EC does not meet the frozen stability claim and is therefore not suitable for freezing. Reconstituted, CA19-9 is stable for 7 days stored refrigerated at +2 - 8◦C, if kept capped in original container and free from contamination.

IA3112 lot 1942EC

Please note that analyte CA19-9 in Immunoassay Premium Plus Lot 1942EC does not meet the complete frozen stability claim and is therefore stable for 3 weeks frozen once stored at -20°C.

(OCC38148)



FORM NO. 8373-GP
REVISION (2)
2 Aug 2019

# IMMUNOASSAY PREMIUM PLUS - LEVEL 1 (IA PREMIUM PLUS 1)

**CAT. NO.** IA3109 **GTIN:** 05055273207255 **SIZE:** 12 x 5 ml
**CAT. NO.** IA3112 **GTIN:** 05055273207286 **SIZE:** 4 x 5 ml
**LOT NO.** 1937EC **EXPIRY:** 2022-12-28

## INTENDED USE
This product is intended for *in vitro* diagnostic use, as assayed quality control material to monitor the accuracy and reproducibility of analytes listed in the package insert.

**This device is for prescription use only.**

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

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

The Abbott Architect CA19-9 assay utilises an antibody/antigen system based on the 1116-NA-19-9 antibody. There are reports that the formulation employed with this system may return elevated concentrations, when compared to other methods for samples expressing high levels of 1116-NA-19-9 reactive determinants.

Health and Safety Data Sheets are available on request.

## STORAGE AND STABILITY
OPENED: Store refrigerated (+2°C to +8°C). Reconstituted serum is stable for 7 days at +2°C to +8°C, if kept capped in original container and free from contamination, or 4 weeks frozen once at –20°C. C-Peptide is stable for 1 day at +2°C to +8°C. Thyroglobulin should be tested within 4 hours of reconstitution when stored at +2°C to +8°C, or within 2 weeks when stored at –20°C. ACTH should be tested immediately after the 30-minute reconstitution period. No frozen stability claim is made for ACTH, Aldosterone and C-Peptide. CA19-9 is stable for 7 days at +2°C to +8°C. CA19-9 in this lot is NOT suitable for freezing.

Only the required amount of product should be removed. After use, any residual product should NOT BE RETURNED to the original vial.

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

Bacterial contamination of the reconstituted serum will cause reductions in the stability of many components. If bacterial contamination is suspected, the vial should be discarded and a fresh vial reconstituted.

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

## MATERIALS PROVIDED
Immunoassay Premium Plus - Level 1: 12 x 5 ml Tri-Level: 4 x 5 ml

## MATERIAL REQUIRED BUT NOT PROVIDED
Volumetric pipette

## VALUE ASSIGNMENT
Each batch of Immunoassay Premium Plus is submitted to a number of external laboratories. Values are assigned from a consensus of results obtained by these laboratories, using a unique statistical analysis. Average values should normally fall within the listed ranges for analytes in the instruments specified in this product insert. However, variations may be caused by instrument reagents and laboratory technique. Therefore, the range produced herein should only be considered as a reference and it is recommended that each laboratory establish its own mean and acceptable ranges. Aldosterone is present in control levels 2 and level 3 only. Parathyroid Hormone (PTH) is present in the control, but no claim is made for the expected value or stability of this analyte.

If a method is unavailable, contact Randox Laboratories - Technical Services, Northern Ireland, tel: +44 (0) 28 9445 1070 or email Technical.Services@randox.com.

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

Rev. 30 July '21 me

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| 17-OH-Progesterone | nmol/l | 2.46 | 1.85 | 3.08 | Immunotech RIA |
| | ng/ml | 0.814 | 0.612 | 1.02 | |
| | nmol/l | 2.19 | 1.64 | 2.74 | DRG ELISA |
| | ng/ml | 0.725 | 0.543 | 0.907 | |
| | nmol/l | 3.85 | 2.89 | 4.81 | DIAsource RIA |
| | ng/ml | 1.27 | 0.957 | 1.58 | |
| | nmol/l | 2.07 | 1.55 | 2.59 | IBL ELISA |
| | ng/ml | 0.685 | 0.513 | 0.857 | |
| | nmol/l | 2.73 | 2.05 | 3.41 | LC/MS |
| | ng/ml | 0.904 | 0.679 | 1.13 | |
| 25-OH Vitamin D | nmol/l | 40.7 | 30.5 | 50.9 | Diasorin Liaison |
| | nmol/l | 41.1 | 30.8 | 51.4 | Siemens Centaur XP/XPT/Classic |
| | nmol/l | 22.0 | 16.5 | 27.5 | Roche Vitamin D Total |
| | nmol/l | 22.8 | 17.1 | 28.5 | Abbott Architect |
| | nmol/l | 112 | 84.0 | 140 | Vitros ECi |
| | nmol/l | 22.1 | 16.6 | 27.6 | Tosoh Series |
| | nmol/l | 27.7 | 20.8 | 34.6 | BioMerieux Vidas |
| | nmol/l | 38.7 | 29.0 | 48.4 | Beckman DxI 600/800 |
| | nmol/l | 18.3 | 13.7 | 22.9 | Fujirebio Lumipulse G Series |
| | nmol/l | 40.6 | 30.5 | 50.8 | Beckman Access 25 OH Vitamin D Total |
| | nmol/l | 22.7 | 17.0 | 28.4 | Abbott Architect (5P02)/ Alinity (8P45) |
| | nmol/l | 41.8 | 31.4 | 52.3 | Diasorin Liaison XL |
| | nmol/l | 22.7 | 17.0 | 28.4 | Roche Vitamin D Total II |
| | nmol/l | 27.6 | 20.7 | 34.5 | Siemens Atellica IM |
| ACTH | pmol/l | 1.10 | 0.825 | 1.38 | Siemens Immulite 2000/2500 |
| | pg/ml | 5.00 | 3.75 | 6.25 | |
| | pmol/l | 0.757 | 0.568 | 0.946 | Roche Cobas E411 |
| | pg/ml | 3.44 | 2.58 | 4.30 | |
| | pmol/l | 6.98 | 5.24 | 8.73 | CIS IRMA |
| | pg/ml | 31.7 | 23.8 | 39.6 | |
| Alphafoetoprotein | KIU/l = IU/ml | 8.56 | 6.85 | 10.3 | Abbott AFP-EIA |
| | ng/ml | 10.4 | 8.29 | 12.5 | |
| | KIU/l = IU/ml | 8.56 | 6.85 | 10.3 | Abbott Architect |
| | ng/ml | 10.4 | 8.29 | 12.5 | |
| | KIU/l = IU/ml | 8.06 | 6.45 | 9.67 | BioMerieux Vidas |
| | ng/ml | 9.75 | 7.80 | 11.7 | |
| | KIU/l = IU/ml | 10.3 | 8.14 | 12.5 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 12.5 | 9.88 | 15.1 | |
| | KIU/l = IU/ml | 8.90 | 7.12 | 10.7 | Siemens Immulite 2000/2500 |
| | ng/ml | 10.8 | 8.62 | 13.0 | |
| | KIU/l = IU/ml | 9.00 | 7.20 | 10.8 | Siemens Immulite 1000 |
| | ng/ml | 10.9 | 8.71 | 13.1 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Alphafoetoprotein | KIU/l = IU/ml | 8.76 | 7.01 | 10.5 | Beckman DxI800 |
| | ng/ml | 10.6 | 8.48 | 12.7 | |
| | KIU/l = IU/ml | 9.42 | 7.54 | 11.3 | Roche Elecsys |
| | ng/ml | 11.4 | 9.12 | 13.7 | |
| | KIU/l = IU/ml | 10.2 | 8.16 | 12.2 | Diasorin Liaison |
| | ng/ml | 12.3 | 9.87 | 14.7 | |
| | KIU/l = IU/ml | 8.83 | 7.06 | 10.6 | Beckman Access |
| | ng/ml | 10.7 | 8.54 | 12.9 | |
| | KIU/l = IU/ml | 9.10 | 7.28 | 10.9 | Tosoh Series |
| | ng/ml | 11.0 | 8.81 | 13.2 | |
| | KIU/l = IU/ml | 9.38 | 7.50 | 11.3 | Vitros ECi |
| | ng/ml | 9.76 | 7.81 | 11.7 | |
| | KIU/l = IU/ml | 9.53 | 7.62 | 11.4 | Roche Cobas 6000/8000 |
| | ng/ml | 11.5 | 9.22 | 13.8 | |
| | KIU/l = IU/ml | 18.0 | 14.4 | 21.6 | CIS IRMA |
| | ng/ml | 21.8 | 17.4 | 26.2 | |
| | KIU/l = IU/ml | 9.43 | 7.54 | 11.3 | Roche Cobas E411 |
| | ng/ml | 11.4 | 9.12 | 13.7 | |
| | KIU/l = IU/ml | 8.80 | 7.04 | 10.6 | Fujirebio Lumipulse G Series |
| | ng/ml | 10.6 | 8.52 | 12.7 | |
| | KIU/l = IU/ml | 9.59 | 7.58 | 11.6 | Siemens Centaur CP |
| | ng/ml | 11.6 | 9.16 | 14.0 | |
| | KIU/l = IU/ml | 10.5 | 8.40 | 12.6 | Diasorin Liaison XL |
| | ng/ml | 12.7 | 10.2 | 15.2 | |
| Amikacin | µmol/l | 5.96 | 4.77 | 7.15 | Roche Cobas 6000/8000 |
| | µg/ml | 3.49 | 2.79 | 4.19 | |
| | µmol/l | 6.40 | 5.12 | 7.68 | Gravimetric |
| | µg/ml | 3.75 | 3.00 | 4.50 | |
| Androstenedione | nmol/l | 5.17 | 3.88 | 6.46 | Siemens Immulite 2000 |
| | ng/ml | 1.48 | 1.11 | 1.85 | |
| | nmol/l | 5.19 | 3.89 | 6.49 | LC/MS |
| | ng/ml | 1.49 | 1.12 | 1.86 | |
| | nmol/l | 5.24 | 3.93 | 6.55 | Diasorin Liaison XL |
| | ng/ml | 1.50 | 1.13 | 1.87 | |
| Beta-2-microglobulin | µg/ml = mg/l | 0.881 | 0.705 | 1.06 | Abbott Architect |
| | µg/ml = mg/l | 1.00 | 0.800 | 1.20 | BioMerieux Vidas |
| | µg/ml = mg/l | 0.819 | 0.655 | 0.983 | Behring Nephelometer |
| | µg/ml = mg/l | 0.900 | 0.720 | 1.08 | Siemens Immulite 2000/2500 |
| | µg/ml = mg/l | 1.02 | 0.816 | 1.22 | Siemens Immulite 1000 |
| | µg/ml = mg/l | 1.03 | 0.824 | 1.24 | Tosoh Series |
| | µg/ml = mg/l | 1.01 | 0.808 | 1.21 | Roche Cobas 6000/8000 |
| | µg/ml = mg/l | 0.743 | 0.594 | 0.892 | Fujirebio Lumipulse G Series |
| | µg/ml = mg/l | 0.742 | 0.594 | 0.890 | Diasorin Liaison XL |
| C-Peptide | nmol/l | 0.533 | 0.400 | 0.666 | Siemens Immulite 2000/2500 |
| | ng/ml | 1.61 | 1.21 | 2.01 | |
| | nmol/l | 0.759 | 0.569 | 0.949 | Roche Elecsys |
| | ng/ml | 2.29 | 1.72 | 2.86 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| C-Peptide | nmol/l | 0.726 | 0.545 | 0.908 | Roche Cobas 6000/8000 |
| | ng/ml | 2.19 | 1.65 | 2.73 | |
| | nmol/l | 0.492 | 0.369 | 0.615 | Siemens Immulite 1000 |
| | ng/ml | 1.49 | 1.11 | 1.87 | |
| | nmol/l | 0.729 | 0.547 | 0.911 | Diasorin Liaison |
| | ng/ml | 2.20 | 1.65 | 2.75 | |
| | nmol/l | 0.716 | 0.537 | 0.895 | Roche Cobas E411 |
| | ng/ml | 2.16 | 1.62 | 2.70 | |
| | nmol/l | 0.611 | 0.458 | 0.764 | Abbott Architect |
| | ng/ml | 1.84 | 1.38 | 2.30 | |
| | nmol/l | 0.496 | 0.347 | 0.645 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 1.50 | 1.05 | 1.95 | |
| | nmol/l | 0.674 | 0.506 | 0.843 | Tosoh Series |
| | ng/ml | 2.03 | 1.53 | 2.53 | |
| | nmol/l | 0.775 | 0.581 | 0.969 | Diasorin Liaison XL |
| | ng/ml | 2.34 | 1.75 | 2.93 | |
| | nmol/l | 0.474 | 0.356 | 0.593 | Siemens Atellica IM |
| | ng/ml | 1.43 | 1.07 | 1.79 | |
| CA 15-3 | U/ml | 17.6 | 14.1 | 21.1 | Abbott Architect |
| | U/ml | 16.3 | 13.0 | 19.6 | BioMerieux Vidas |
| | U/ml | 16.8 | 11.1 | 22.5 | Siemens Centaur XP/XPT/Classic |
| | U/ml | 16.0 | 12.8 | 19.2 | Siemens Immulite 2000/2500 |
| | U/ml | 18.6 | 14.9 | 22.3 | Siemens Immulite 1000 |
| | U/ml | 7.30 | 5.84 | 8.76 | Beckman DxI800 |
| | U/ml | 16.7 | 13.4 | 20.0 | Roche Elecsys |
| | U/ml | 17.1 | 13.7 | 20.5 | Diasorin Liaison |
| | U/ml | 7.43 | 5.94 | 8.92 | Beckman Access |
| | U/ml | 17.9 | 14.3 | 21.5 | Tosoh Series |
| | U/ml | 15.5 | 12.4 | 18.6 | Vitros ECi |
| | U/ml | 16.8 | 13.4 | 20.2 | Roche Cobas 6000/8000 |
| | U/ml | 16.8 | 13.4 | 20.2 | Roche Cobas E411 |
| | U/ml | 20.2 | 16.2 | 24.2 | Fujirebio Lumipulse G Series |
| | U/ml | 17.4 | 11.5 | 23.3 | Siemens Centaur CP |
| | U/ml | 15.7 | 12.6 | 18.8 | Diasorin Liaison XL |
| CA 19-9 | U/ml | 7.79 | 6.23 | 9.35 | BioMerieux Vidas |
| | U/ml | 10.9 | 7.19 | 14.6 | Siemens Centaur XP/XPT/Classic |
| | U/ml | 40.2 | 32.2 | 48.2 | Siemens Immulite 2000/2500 |
| | U/ml | 44.9 | 35.9 | 53.9 | Beckman DxI800 |
| | U/ml | 15.6 | 12.5 | 18.7 | Roche Elecsys |
| | U/ml | 53.1 | 42.5 | 63.7 | Beckman Access |
| | U/ml | 12.4 | 9.92 | 14.9 | Tosoh Series |
| | U/ml | 18.9 | 15.1 | 22.7 | Vitros ECi |
| | U/ml | 24.5 | 19.6 | 29.4 | Abbott Architect XR/XR2 kit |
| | U/ml | 14.9 | 11.9 | 17.9 | Roche Cobas 6000/8000 |
| | U/ml | 14.7 | 11.8 | 17.6 | Roche Cobas E411 |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| CA 19-9 | U/ml | 18.9 | 15.1 | 22.7 | Fujirebio Lumipulse G Series |
| | U/ml | 8.74 | 6.99 | 10.5 | Mindray CL-2000i |
| | U/ml | 37.0 | 29.6 | 44.4 | Diasorin Liaison XL |
| CA125 | U/ml | 26.6 | 21.3 | 31.9 | Abbott Architect |
| | U/ml | 18.8 | 15.0 | 22.6 | BioMerieux Vidas |
| | U/ml | 22.2 | 14.7 | 29.7 | Siemens Centaur XP/XPT/Classic OV Kit |
| | U/ml | 22.4 | 14.8 | 30.0 | Siemens Centaur XP/XPT/Classic CA125 II kit |
| | U/ml | 19.7 | 15.8 | 23.6 | Siemens Immulite 2000/2500 |
| | U/ml | 20.2 | 16.2 | 24.2 | Siemens Immulite 1000 |
| | U/ml | 17.2 | 13.8 | 20.6 | Beckman DxI800 |
| | U/ml | 17.5 | 14.0 | 21.0 | Roche Elecsys |
| | U/ml | 23.0 | 18.4 | 27.6 | Diasorin Liaison |
| | U/ml | 17.9 | 14.3 | 21.5 | Beckman Access |
| | U/ml | 29.8 | 23.8 | 35.8 | Tosoh Series |
| | U/ml | 17.1 | 13.7 | 20.5 | Vitros ECi |
| | U/ml | 17.6 | 14.1 | 21.1 | Roche Cobas E411 |
| | U/ml | 17.2 | 13.8 | 20.6 | Roche Cobas 6000/8000 |
| | U/ml | 16.9 | 13.5 | 20.3 | Fujirebio Lumipulse G Series |
| | U/ml | 22.7 | 15.0 | 30.4 | Siemens Centaur CP CA125 II kit |
| | U/ml | 38.3 | 30.6 | 46.0 | Mindray CL-2000i |
| | U/ml | 22.3 | 17.8 | 26.8 | Diasorin Liaison XL |
| Carbamazepine | µmol/l | 15.0 | 12.0 | 18.0 | Abbott Architect |
| | µg/ml | 3.55 | 2.84 | 4.26 | |
| | µmol/l | 17.3 | 12.5 | 22.1 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 4.09 | 2.94 | 5.24 | |
| | µmol/l | 13.9 | 11.1 | 16.7 | Siemens Dimension |
| | µg/ml | 3.29 | 2.62 | 3.96 | |
| | µmol/l | 12.2 | 9.76 | 14.6 | Siemens Immulite 2000/2500 |
| | µg/ml | 2.88 | 2.31 | 3.45 | |
| | µmol/l | 12.1 | 9.68 | 14.5 | Siemens Immulite 1000 |
| | µg/ml | 2.86 | 2.29 | 3.43 | |
| | µmol/l | 15.4 | 12.3 | 18.5 | Roche Integra |
| | µg/ml | 3.64 | 2.91 | 4.37 | |
| | µmol/l | 14.1 | 11.3 | 16.9 | Roche Cobas 6000/8000 |
| | µg/ml | 3.33 | 2.67 | 3.99 | |
| | µmol/l | 14.3 | 11.4 | 17.2 | Beckman DxC |
| | µg/ml | 3.38 | 2.69 | 4.07 | |
| | µmol/l | 16.0 | 12.8 | 19.2 | Beckman AU400/600/640/2700/5400 |
| | µg/ml | 3.78 | 3.03 | 4.53 | |
| | µmol/l | 15.4 | 12.3 | 18.5 | Gravimetric |
| | µg/ml | 3.64 | 2.91 | 4.37 | |
| Carcinoembryonic Antigen (CEA) | ng/ml = µg/l | 5.00 | 4.00 | 6.00 | Abbott Architect |
| | ng/ml = µg/l | 4.13 | 3.30 | 4.96 | BioMerieux Vidas |
| | ng/ml = µg/l | 4.82 | 3.18 | 6.46 | Siemens Centaur XP/XPT/Classic |
| | ng/ml = µg/l | 4.80 | 3.84 | 5.76 | CIS RIA Coated tube |
| | ng/ml = µg/l | 5.21 | 4.17 | 6.25 | Siemens Immulite 2000/2500 |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Carcinoembryonic Antigen (CEA) | ng/ml = µg/l | 5.30 | 4.24 | 6.36 | Siemens Immulite 1000 |
| | ng/ml = µg/l | 4.34 | 3.47 | 5.21 | Beckman DxI800 |
| | ng/ml = µg/l | 4.28 | 3.42 | 5.14 | Roche Elecsys |
| | ng/ml = µg/l | 4.27 | 3.42 | 5.12 | Diasorin Liaison |
| | ng/ml = µg/l | 4.52 | 3.62 | 5.42 | Beckman Access |
| | ng/ml = µg/l | 5.97 | 4.78 | 7.16 | Tosoh Series |
| | ng/ml = µg/l | 4.59 | 3.67 | 5.51 | Vitros ECi |
| | ng/ml = µg/l | 4.19 | 3.35 | 5.03 | Roche Cobas 6000/8000 |
| | ng/ml = µg/l | 4.30 | 3.44 | 5.16 | Roche Cobas E411 |
| | ng/ml = µg/l | 6.06 | 4.85 | 7.27 | Fujirebio Lumipulse G Series |
| | ng/ml = µg/l | 4.91 | 3.24 | 6.58 | Siemens Centaur CP |
| | ng/ml = µg/l | 3.66 | 2.93 | 4.39 | Mindray CL-2000i |
| | ng/ml = µg/l | 4.38 | 3.50 | 5.26 | Diasorin Liaison XL |
| Cortisol | nmol/l | 195 | 146 | 244 | Abbott Architect |
| | µg/dl | 7.02 | 5.26 | 8.78 | |
| | nmol/l | 124 | 93.0 | 155 | BioMerieux Vidas |
| | µg/dl | 4.46 | 3.35 | 5.57 | |
| | nmol/l | 172 | 114 | 230 | Siemens Centaur XP/XPT/Classic |
| | µg/dl | 6.19 | 4.09 | 8.29 | |
| | nmol/l | 165 | 124 | 206 | CIS RIA |
| | µg/dl | 5.94 | 4.46 | 7.42 | |
| | nmol/l | 185 | 139 | 231 | Siemens Immulite 2000/2500 |
| | µg/dl | 6.66 | 5.00 | 8.32 | |
| | nmol/l | 174 | 131 | 218 | Siemens Immulite 1000 |
| | µg/dl | 6.26 | 4.72 | 7.80 | |
| | nmol/l | 178 | 134 | 223 | Beckman DxI800 |
| | µg/dl | 6.41 | 4.82 | 8.00 | |
| | nmol/l | 176 | 132 | 220 | Roche Elecsys |
| | µg/dl | 6.34 | 4.75 | 7.93 | |
| | nmol/l | 208 | 156 | 260 | Diasorin Liaison |
| | µg/dl | 7.49 | 5.62 | 9.36 | |
| | nmol/l | 180 | 135 | 225 | Beckman Access |
| | µg/dl | 6.48 | 4.86 | 8.10 | |
| | nmol/l | 162 | 122 | 203 | Tosoh Series |
| | µg/dl | 5.83 | 4.39 | 7.27 | |
| | nmol/l | 129 | 96.8 | 161 | Vitros ECi |
| | µg/dl | 4.64 | 3.48 | 5.80 | |
| | nmol/l | 172 | 129 | 215 | Roche Cobas 6000/8000 |
| | µg/dl | 6.19 | 4.64 | 7.74 | |
| | nmol/l | 185 | 139 | 231 | Roche Cobas E411 |
| | µg/dl | 6.66 | 5.00 | 8.32 | |
| | nmol/l | 187 | 123 | 251 | Siemens Centaur CP |
| | µg/dl | 6.73 | 4.44 | 9.02 | |
| | nmol/l | 188 | 141 | 235 | Roche Cobas 4000/e411 Gen II |
| | µg/dl | 6.77 | 5.08 | 8.46 | |
| | nmol/l | 170 | 128 | 213 | Roche Cobas 6000/8000 Gen II |
| | µg/dl | 6.12 | 4.61 | 7.63 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Cortisol | nmol/l | 175 | 131 | 219 | Roche Elecsys Gen II |
| | µg/dl | 6.30 | 4.72 | 7.88 | |
| | nmol/l | 187 | 140 | 234 | Diasorin Liaison XL |
| | µg/dl | 6.73 | 5.04 | 8.42 | |
| DHEA-S | µmol/l | 2.44 | 1.95 | 2.93 | Abbott Architect |
| | µmol/l | 1.90 | 1.52 | 2.28 | Siemens Immulite 2000/2500 |
| | µmol/l | 2.02 | 1.62 | 2.42 | Siemens Immulite 1000 |
| | µmol/l | 2.20 | 1.76 | 2.64 | Beckman DxI800 |
| | µmol/l | 2.86 | 2.29 | 3.43 | Roche Elecsys |
| | µmol/l | 2.29 | 1.83 | 2.75 | Beckman Access |
| | µmol/l | 1.68 | 1.34 | 2.02 | Diasorin Liaison |
| | µmol/l | 2.47 | 1.61 | 3.33 | Siemens Centaur XP/XPT/Classic |
| | µmol/l | 3.05 | 2.44 | 3.66 | Roche Cobas E411 |
| | µmol/l | 2.83 | 2.26 | 3.40 | Roche Cobas 6000/8000 |
| | µmol/l | 1.99 | 1.59 | 2.39 | Immunotech RIA |
| | µmol/l | 1.79 | 1.43 | 2.15 | Diasorin Liaison XL |
| Digoxin | nmol/l | 0.554 | 0.443 | 0.665 | Abbott Architect |
| | ng/ml | 0.433 | 0.346 | 0.520 | |
| | nmol/l | 0.605 | 0.484 | 0.726 | BioMerieux Vidas |
| | ng/ml | 0.473 | 0.378 | 0.568 | |
| | nmol/l | 0.948 | 0.711 | 1.19 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 0.740 | 0.555 | 0.925 | |
| | nmol/l | 0.768 | 0.614 | 0.922 | Siemens Dimension |
| | ng/ml | 0.600 | 0.480 | 0.720 | |
| | nmol/l | 0.734 | 0.587 | 0.881 | Beckman DxI800 |
| | ng/ml | 0.573 | 0.458 | 0.688 | |
| | nmol/l | 0.800 | 0.640 | 0.960 | Roche Integra |
| | ng/ml | 0.625 | 0.500 | 0.750 | |
| | nmol/l | 0.846 | 0.677 | 1.02 | Vitros |
| | ng/ml | 0.661 | 0.529 | 0.793 | |
| | nmol/l | 0.829 | 0.663 | 0.995 | Roche Cobas 6000/8000 |
| | ng/ml | 0.647 | 0.518 | 0.776 | |
| | nmol/l | 0.976 | 0.781 | 1.17 | Beckman AU400/600/640/2700/5400 |
| | ng/ml | 0.762 | 0.610 | 0.914 | |
| | nmol/l | 0.953 | 0.762 | 1.14 | Roche Cobas 4000/E411 |
| | ng/ml | 0.744 | 0.595 | 0.893 | |
| | nmol/l | 0.896 | 0.717 | 1.08 | Gravimetric |
| | ng/ml | 0.700 | 0.560 | 0.840 | |
| Ethosuximide | µmol/l | 226 | 181 | 271 | Gravimetric |
| | µg/ml | 32.0 | 25.7 | 38.4 | |
| Ferritin | ng/ml = µg/l | 19.7 | 15.8 | 23.6 | Abbott Architect |
| | ng/ml = µg/l | 18.3 | 14.6 | 22.0 | BioMerieux Vidas |
| | ng/ml = µg/l | 16.6 | 12.5 | 20.7 | Siemens Centaur XP/XPT/Classic |
| | ng/ml = µg/l | 20.7 | 16.6 | 24.8 | Siemens Dimension |
| | ng/ml = µg/l | 18.2 | 14.6 | 21.8 | Siemens Immulite 2000/2500 |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Ferritin | ng/ml = µg/l | 17.5 | 14.0 | 21.0 | Siemens Immulite 1000 |
| | ng/ml = µg/l | 12.8 | 10.2 | 15.4 | Beckman DxI800 |
| | ng/ml = µg/l | 20.2 | 16.2 | 24.2 | Roche Elecsys |
| | ng/ml = µg/l | 15.7 | 12.6 | 18.8 | Diasorin Liaison |
| | ng/ml = µg/l | 20.3 | 16.2 | 24.4 | Roche Modular E170 |
| | ng/ml = µg/l | 13.1 | 10.5 | 15.7 | Beckman Access |
| | ng/ml = µg/l | 12.8 | 10.2 | 15.4 | Tosoh Series |
| | ng/ml = µg/l | 14.1 | 11.3 | 16.9 | Vitros ECi |
| | ng/ml = µg/l | 15.9 | 12.7 | 19.1 | Immunotech IRMA |
| | ng/ml = µg/l | 21.8 | 17.4 | 26.2 | Roche Cobas E411 |
| | ng/ml = µg/l | 15.3 | 12.2 | 18.4 | Beckman AU400/600/640/2700/5400 |
| | ng/ml = µg/l | 11.4 | 9.12 | 13.7 | Fujirebio Lumipulse G Series |
| | ng/ml = µg/l | 15.4 | 11.6 | 19.2 | Siemens Centaur CP |
| | ng/ml = µg/l | 15.3 | 12.2 | 18.4 | Diasorin Liaison XL |
| Folate | nmol/l | 3.76 | 2.86 | 4.66 | Abbott Architect |
| | ng/ml | 1.66 | 1.26 | 2.06 | |
| | nmol/l | 6.91 | 3.80 | 10.0 | Siemens Centaur XP/XPT/Classic (enhanced kit) |
| | ng/ml | 3.05 | 1.68 | 4.42 | |
| | nmol/l | 2.79 | 2.12 | 3.46 | Siemens Immulite 2000 |
| | ng/ml | 1.23 | 0.935 | 1.53 | |
| | nmol/l | 3.73 | 2.83 | 4.63 | Beckman DxI800 |
| | ng/ml | 1.64 | 1.25 | 2.03 | |
| | nmol/l | 3.53 | 2.68 | 4.38 | Beckman Access |
| | ng/ml | 1.56 | 1.18 | 1.94 | |
| | nmol/l | 3.75 | 2.85 | 4.65 | Vitros ECi |
| | ng/ml | 1.65 | 1.26 | 2.04 | |
| | nmol/l | 2.44 | 1.85 | 3.03 | Siemens Dimension |
| | ng/ml | 1.08 | 0.816 | 1.34 | |
| Free T3 | pmol/l | 2.55 | 1.91 | 3.19 | Abbott Architect |
| | ng/dl | 0.166 | 0.124 | 0.208 | |
| | pg/ml | 1.66 | 1.24 | 2.08 | |
| | pmol/l | 2.28 | 1.71 | 2.85 | BioMerieux Vidas |
| | ng/dl | 0.148 | 0.111 | 0.185 | |
| | pg/ml | 1.48 | 1.11 | 1.85 | |
| | pmol/l | 2.94 | 1.76 | 4.12 | Siemens Centaur XP/XPT/Classic |
| | ng/dl | 0.191 | 0.115 | 0.267 | |
| | pg/ml | 1.91 | 1.15 | 2.67 | |
| | pmol/l | 2.62 | 1.97 | 3.28 | Siemens Immulite 2000/2500 |
| | ng/dl | 0.170 | 0.128 | 0.212 | |
| | pg/ml | 1.71 | 1.28 | 2.14 | |
| | pmol/l | 2.63 | 1.97 | 3.29 | Siemens Immulite 1000 |
| | ng/dl | 0.171 | 0.128 | 0.214 | |
| | pg/ml | 1.71 | 1.28 | 2.14 | |
| | pmol/l | 3.13 | 2.35 | 3.91 | Beckman DxI800 |
| | ng/dl | 0.203 | 0.153 | 0.253 | |
| | pg/ml | 2.04 | 1.53 | 2.55 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Free T3 | pmol/l | 3.41 | 2.56 | 4.26 | Roche Elecsys |
| | ng/dl | 0.222 | 0.166 | 0.278 | |
| | pg/ml | 2.22 | 1.67 | 2.77 | |
| | pmol/l | 1.99 | 1.49 | 2.49 | Diasorin Liaison |
| | ng/dl | 0.129 | 0.097 | 0.161 | |
| | pg/ml | 1.30 | 0.970 | 1.63 | |
| | pmol/l | 3.12 | 2.34 | 3.90 | Beckman Access |
| | ng/dl | 0.203 | 0.152 | 0.254 | |
| | pg/ml | 2.03 | 1.52 | 2.54 | |
| | pmol/l | 4.97 | 3.73 | 6.21 | Vitros ECi |
| | ng/dl | 0.323 | 0.242 | 0.404 | |
| | pg/ml | 3.24 | 2.43 | 4.05 | |
| | pmol/l | 3.53 | 2.65 | 4.41 | Roche Cobas E411 |
| | ng/dl | 0.229 | 0.172 | 0.286 | |
| | pg/ml | 2.30 | 1.73 | 2.87 | |
| | pmol/l | 3.31 | 2.48 | 4.14 | Roche Cobas 6000/8000 |
| | ng/dl | 0.215 | 0.161 | 0.269 | |
| | pg/ml | 2.15 | 1.61 | 2.69 | |
| | pmol/l | 3.20 | 1.92 | 4.48 | Siemens Centaur CP |
| | ng/dl | 0.208 | 0.125 | 0.291 | |
| | pg/ml | 2.08 | 1.25 | 2.91 | |
| | pmol/l | 2.68 | 2.01 | 3.35 | Mindray CL-2000i |
| | ng/dl | 0.174 | 0.131 | 0.217 | |
| | pg/ml | 1.74 | 1.31 | 2.17 | |
| | pmol/l | 2.18 | 1.64 | 2.73 | Diasorin Liaison XL |
| | ng/dl | 0.142 | 0.107 | 0.177 | |
| | pg/ml | 1.42 | 1.07 | 1.77 | |
| Free T4 | pmol/l | 8.97 | 6.73 | 11.2 | Abbott Architect |
| | ng/dl | 0.700 | 0.525 | 0.875 | |
| | pg/ml | 7.00 | 5.25 | 8.75 | |
| | pmol/l | 7.98 | 5.99 | 9.98 | Siemens Centaur XP/XPT/Classic |
| | ng/dl | 0.622 | 0.467 | 0.777 | |
| | pg/ml | 6.22 | 4.67 | 7.77 | |
| | pmol/l | 10.5 | 7.88 | 13.1 | CIS RIA Coated tube |
| | ng/dl | 0.819 | 0.615 | 1.02 | |
| | pg/ml | 8.19 | 6.15 | 10.2 | |
| | pmol/l | 12.8 | 9.60 | 16.0 | Siemens Immulite 2000/2500 |
| | ng/dl | 0.998 | 0.749 | 1.25 | |
| | pg/ml | 9.98 | 7.49 | 12.5 | |
| | pmol/l | 12.3 | 9.23 | 15.4 | Siemens Immulite 1000 |
| | ng/dl | 0.959 | 0.720 | 1.20 | |
| | pg/ml | 9.59 | 7.20 | 12.0 | |
| | pmol/l | 9.46 | 7.10 | 11.8 | Beckman DxI800 |
| | ng/dl | 0.738 | 0.554 | 0.922 | |
| | pg/ml | 7.38 | 5.54 | 9.22 | |
| | pmol/l | 12.0 | 9.00 | 15.0 | Roche Elecsys |
| | ng/dl | 0.936 | 0.702 | 1.17 | |
| | pg/ml | 9.36 | 7.02 | 11.7 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Free T4 | pmol/l | 11.6 | 8.70 | 14.5 | Diasorin Liaison |
| | ng/dl | 0.905 | 0.679 | 1.13 | |
| | pg/ml | 9.05 | 6.79 | 11.3 | |
| | pmol/l | 9.37 | 7.03 | 11.7 | Beckman Access |
| | ng/dl | 0.731 | 0.548 | 0.914 | |
| | pg/ml | 7.31 | 5.48 | 9.14 | |
| | pmol/l | 8.63 | 6.47 | 10.8 | Tosoh Series |
| | ng/dl | 0.673 | 0.505 | 0.841 | |
| | pg/ml | 6.73 | 5.05 | 8.41 | |
| | pmol/l | 13.1 | 9.83 | 16.4 | Vitros ECi |
| | ng/dl | 1.02 | 0.767 | 1.27 | |
| | pg/ml | 10.2 | 7.67 | 12.7 | |
| | pmol/l | 11.8 | 8.85 | 14.8 | Roche Cobas 6000/8000 |
| | ng/dl | 0.920 | 0.690 | 1.15 | |
| | pg/ml | 9.20 | 6.90 | 11.5 | |
| | pmol/l | 10.0 | 7.50 | 12.5 | Immunotech IRMA |
| | ng/dl | 0.780 | 0.585 | 0.975 | |
| | pg/ml | 7.80 | 5.85 | 9.75 | |
| | pmol/l | 12.0 | 9.00 | 15.0 | Roche Cobas E411 |
| | ng/dl | 0.936 | 0.702 | 1.17 | |
| | pg/ml | 9.36 | 7.02 | 11.7 | |
| | pmol/l | 9.30 | 6.98 | 11.6 | Biomerieux Vidas FT4N Kit |
| | ng/dl | 0.725 | 0.544 | 0.906 | |
| | pg/ml | 7.25 | 5.44 | 9.06 | |
| | pmol/l | 8.62 | 6.47 | 10.8 | Siemens Centaur CP |
| | ng/dl | 0.672 | 0.505 | 0.839 | |
| | pg/ml | 6.72 | 5.05 | 8.39 | |
| | pmol/l | 8.85 | 6.64 | 11.1 | Mindray CL-2000i |
| | ng/dl | 0.690 | 0.518 | 0.862 | |
| | pg/ml | 6.90 | 5.18 | 8.62 | |
| | pmol/l | 11.3 | 8.48 | 14.1 | Diasorin Liaison XL |
| | ng/dl | 0.881 | 0.661 | 1.10 | |
| | pg/ml | 8.81 | 6.61 | 11.0 | |
| FSH | mU/ml | 5.52 | 4.42 | 6.62 | Abbott Architect |
| | mU/ml | 6.78 | 5.42 | 8.14 | BioMerieux Vidas |
| | mU/ml | 8.67 | 6.07 | 11.3 | Siemens Centaur XP/XPT/Classic |
| | mU/ml | 6.81 | 5.45 | 8.17 | Siemens Immulite 2000/2500 |
| | mU/ml | 6.83 | 5.46 | 8.20 | Siemens Immulite 1000 |
| | mU/ml | 6.88 | 5.50 | 8.26 | Beckman DxI800 |
| | mU/ml | 6.29 | 5.03 | 7.55 | Roche/BM Elecsys |
| | mU/ml | 7.83 | 6.26 | 9.40 | Diasorin Liaison |
| | mU/ml | 6.90 | 5.52 | 8.28 | Beckman Access |
| | mU/ml | 7.24 | 5.79 | 8.69 | Tosoh Series |
| | mU/ml | 5.23 | 4.18 | 6.28 | Vitros ECi |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| FSH | mU/ml | 6.44 | 5.15 | 7.73 | Roche Cobas E411 |
| | mU/ml | 6.00 | 4.80 | 7.20 | Roche Cobas 6000/8000 |
| | mU/ml | 5.11 | 4.09 | 6.13 | Fujirebio Lumipulse G Series |
| | mU/ml | 6.74 | 4.72 | 8.76 | Siemens Centaur CP |
| | mU/ml | 10.2 | 8.16 | 12.2 | Diasorin Liaison XL |
| Gentamicin | µmol/l | 4.39 | 3.16 | 5.62 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 2.10 | 1.51 | 2.69 | |
| | µmol/l | 3.87 | 3.10 | 4.64 | Roche Cobas 6000/8000 |
| | µg/ml | 1.85 | 1.48 | 2.22 | |
| | µmol/l | 4.85 | 3.88 | 5.82 | Gravimetric |
| | µg/ml | 2.32 | 1.85 | 2.78 | |
| Growth Hormone (GH) | µU/ml | 4.89 | 3.91 | 5.87 | Siemens Immulite 2000/2500 |
| | ng/ml | 1.63 | 1.30 | 1.96 | |
| | µU/ml | 4.88 | 3.90 | 5.86 | Siemens Immulite 1000 |
| | ng/ml | 1.63 | 1.30 | 1.96 | |
| | µU/ml | 3.59 | 2.87 | 4.31 | Beckman DxI800 |
| | ng/ml | 1.20 | 0.956 | 1.44 | |
| | µU/ml | 3.64 | 2.91 | 4.37 | Beckman Access |
| | ng/ml | 1.21 | 0.969 | 1.45 | |
| | µU/ml | 4.55 | 3.64 | 5.46 | Tosoh Series |
| | ng/ml | 1.52 | 1.21 | 1.83 | |
| | µU/ml | 3.68 | 2.94 | 4.42 | Diasorin Liaison |
| | ng/ml | 1.23 | 0.979 | 1.48 | |
| | µU/ml | 4.52 | 3.62 | 5.42 | Roche Cobas E411 |
| | ng/ml | 1.51 | 1.21 | 1.81 | |
| | µU/ml | 4.52 | 3.62 | 5.42 | Roche Cobas 6000/8000 |
| | ng/ml | 1.51 | 1.21 | 1.81 | |
| | µU/ml | 3.62 | 2.90 | 4.34 | Diasorin Liaison XL |
| | ng/ml | 1.21 | 0.966 | 1.45 | |
| Immunoglobulin E | KIU/l = IU/ml | 232 | 186 | 278 | Abbott Architect |
| | KIU/l = IU/ml | 199 | 159 | 239 | BioMerieux Vidas |
| | KIU/l = IU/ml | 258 | 155 | 361 | Siemens Centaur XP/XPT/Classic |
| | KIU/l = IU/ml | 253 | 202 | 304 | Siemens Immulite 2000/2500 |
| | KIU/l = IU/ml | 257 | 206 | 308 | Siemens Immulite 1000 |
| | KIU/l = IU/ml | 217 | 174 | 260 | Beckman DxI800 |
| | KIU/l = IU/ml | 233 | 186 | 280 | Roche Elecsys |
| | KIU/l = IU/ml | 223 | 178 | 268 | Pharmacia Unicap |
| | KIU/l = IU/ml | 225 | 180 | 270 | Tosoh Series |
| | KIU/l = IU/ml | 246 | 197 | 295 | Roche Cobas E411 |
| | KIU/l = IU/ml | 241 | 193 | 289 | Roche Cobas 6000/8000 |
| | KIU/l = IU/ml | 201 | 161 | 241 | Fujirebio Lumipulse G Series |
| | KIU/l = IU/ml | 241 | 145 | 337 | Siemens Centaur CP |
| Insulin | mU/l | 1.51 | 1.13 | 1.89 | Siemens Centaur XP/XPT/Classic |
| | µU/ml | 1.51 | 1.13 | 1.89 | |
| | mU/l | 1.96 | 1.47 | 2.45 | Roche Elecsys |
| | µU/ml | 1.96 | 1.47 | 2.45 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Insulin | mU/l | 0.823 | 0.617 | 1.03 | Beckman Access |
| | µU/ml | 0.823 | 0.617 | 1.03 | |
| | mU/l | 1.29 | 0.968 | 1.61 | Abbott Architect |
| | µU/ml | 1.29 | 0.968 | 1.61 | |
| | mU/l | 3.85 | 2.89 | 4.81 | Tosoh Series |
| | µU/ml | 3.85 | 2.89 | 4.81 | |
| | mU/l | 1.97 | 1.48 | 2.46 | Roche Cobas E411 |
| | µU/ml | 1.97 | 1.48 | 2.46 | |
| | mU/l | 0.780 | 0.585 | 0.975 | Beckman DxI 600/800 |
| | µU/ml | 0.780 | 0.585 | 0.975 | |
| | mU/l | 1.11 | 0.833 | 1.39 | Diasorin Liaison |
| | µU/ml | 1.11 | 0.833 | 1.39 | |
| | mU/l | 2.16 | 1.62 | 2.70 | Roche Cobas 6000/8000 |
| | µU/ml | 2.16 | 1.62 | 2.70 | |
| | mU/l | 5.64 | 4.23 | 7.05 | SNIBE Maglumi Analysers |
| | µU/ml | 5.64 | 4.23 | 7.05 | |
| | mU/l | 1.72 | 1.29 | 2.15 | Fujirebio Lumipulse G Series |
| | µU/ml | 1.72 | 1.29 | 2.15 | |
| | mU/l | 1.32 | 0.990 | 1.65 | Siemens Centaur CP |
| | µU/ml | 1.32 | 0.990 | 1.65 | |
| | mU/l | 1.38 | 1.04 | 1.73 | Siemens Atellica IM |
| | µU/ml | 1.38 | 1.04 | 1.72 | |
| Luteinising Hormone (LH) | mU/ml | 2.37 | 1.90 | 2.84 | Abbott Architect |
| | mU/ml | 3.10 | 2.48 | 3.72 | BioMerieux Vidas |
| | mU/ml | 2.94 | 2.21 | 3.67 | Siemens Centaur XP/XPT/Classic |
| | mU/ml | 5.37 | 4.30 | 6.44 | Siemens Immulite 2000 |
| | mU/ml | 5.65 | 4.52 | 6.78 | Siemens Immulite 1000 |
| | mU/ml | 2.26 | 1.81 | 2.71 | Beckman DxI800 |
| | mU/ml | 3.79 | 3.03 | 4.55 | Roche Elecsys |
| | mU/ml | 3.94 | 3.15 | 4.73 | Diasorin Liaison |
| | mU/ml | 2.33 | 1.86 | 2.80 | Beckman Access |
| | mU/ml | 2.62 | 2.10 | 3.14 | Tosoh Series |
| | mU/ml | 6.16 | 4.93 | 7.39 | Vitros ECi |
| | mU/ml | 3.84 | 3.07 | 4.61 | Roche Cobas E411 |
| | mU/ml | 3.80 | 3.04 | 4.56 | Roche Cobas 6000/8000 |
| | mU/ml | 2.64 | 2.11 | 3.17 | Fujirebio Lumipulse G Series |
| | mU/ml | 2.72 | 2.04 | 3.40 | Siemens Centaur CP |
| | mU/ml | 3.72 | 2.98 | 4.46 | Mindray CL-2000i |
| | mU/ml | 3.84 | 3.07 | 4.61 | Diasorin Liaison XL |
| Oestradiol | pmol/l | 172 | 138 | 206 | Abbott Architect |
| | pg/ml | 46.8 | 37.5 | 56.1 | |
| | pmol/l | 253 | 202 | 304 | BioMerieux Vidas |
| | pg/ml | 68.8 | 54.9 | 82.7 | |
| | pmol/l | 131 | 78.6 | 183 | Siemens Centaur XP/XPT/Classic |
| | pg/ml | 35.6 | 21.4 | 49.8 | |
| | pmol/l | 89.6 | 71.7 | 108 | Siemens Immulite 1000 |
| | pg/ml | 24.4 | 19.5 | 29.3 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Oestradiol | pmol/l | 120 | 96.0 | 144 | Beckman DxI800 |
| | pg/ml | 32.6 | 26.1 | 39.1 | |
| | pmol/l | 175 | 140 | 210 | Roche Elecsys (Estradiol II) |
| | pg/ml | 47.6 | 38.1 | 57.1 | |
| | pmol/l | 125 | 100 | 150 | Beckman Access |
| | pg/ml | 34.0 | 27.2 | 40.8 | |
| | pmol/l | 74.7 | 59.8 | 89.6 | Vitros ECi |
| | pg/ml | 20.3 | 16.3 | 24.3 | |
| | pmol/l | 168 | 134 | 202 | Roche Cobas 6000/8000 (Estradiol II) |
| | pg/ml | 45.7 | 36.4 | 55.0 | |
| | pmol/l | 169 | 135 | 203 | Roche Cobas 4000/E411 (Estradiol II) |
| | pg/ml | 46.0 | 36.7 | 55.3 | |
| | pmol/l | 136 | 81.6 | 190 | Siemens Centaur XP/XPT/Classic Enhanced (eE2) |
| | pg/ml | 37.0 | 22.2 | 51.8 | |
| | pmol/l | 136 | 81.6 | 190 | Siemens Centaur CP Enhanced (eE2) |
| | pg/ml | 37.0 | 22.2 | 51.8 | |
| | pmol/l | 156 | 125 | 187 | Fujirebio Lumipulse G Series |
| | pg/ml | 42.4 | 34.0 | 50.8 | |
| | pmol/l | 180 | 144 | 216 | Roche Cobas 6000/8000 (Estradiol III) |
| | pg/ml | 49.0 | 39.2 | 58.8 | |
| | pmol/l | 171 | 137 | 205 | Roche Elecsys (Estradiol III) |
| | pg/ml | 46.5 | 37.3 | 55.7 | |
| | pmol/l | 166 | 133 | 199 | Roche Cobas 4000/E411 (Estradiol III) |
| | pg/ml | 45.2 | 36.2 | 54.2 | |
| | pmol/l | 118 | 94.4 | 142 | Diasorin Liaison XL |
| | pg/ml | 32.1 | 25.7 | 38.5 | |
| Paracetamol | mmol/l | 0.161 | 0.129 | 0.193 | Abbott Architect |
| | mg/l | 24.4 | 19.5 | 29.3 | |
| | mmol/l | 0.153 | 0.122 | 0.184 | Roche Cobas 6000/8000 |
| | mg/l | 23.1 | 18.5 | 27.7 | |
| | mmol/l | 0.166 | 0.130 | 0.200 | Gravimetric |
| | mg/l | 25.1 | 19.7 | 30.3 | |
| Phenobarbital | µmol/l | 33.7 | 27.0 | 40.4 | Abbott Architect |
| | µg/ml | 7.82 | 6.26 | 9.38 | |
| | µmol/l | 31.9 | 25.5 | 38.3 | Roche Cobas 6000/8000 |
| | µg/ml | 7.40 | 5.92 | 8.88 | |
| | µmol/l | 34.7 | 27.8 | 41.6 | Siemens Immulite 2000/2500 |
| | µg/ml | 8.05 | 6.45 | 9.65 | |
| | µmol/l | 30.4 | 24.3 | 36.5 | Beckman AU400/600/640/2700/5400 |
| | µg/ml | 7.05 | 5.64 | 8.46 | |
| | µmol/l | 47.8 | 33.5 | 62.1 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 11.1 | 7.77 | 14.4 | |
| | µmol/l | 34.5 | 27.6 | 41.4 | Roche Integra |
| | µg/ml | 8.00 | 6.40 | 9.60 | |
| | µmol/l | 34.7 | 27.8 | 41.6 | Siemens Immulite 1000 |
| | µg/ml | 8.05 | 6.45 | 9.65 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Phenobarbital | µmol/l | 34.5 | 27.6 | 41.4 | Gravimetric |
| | µg/ml | 8.00 | 6.40 | 9.60 | |
| Phenytoin | µmol/l | 18.8 | 15.0 | 22.6 | Abbott Architect |
| | µg/ml | 4.75 | 3.79 | 5.71 | |
| | µmol/l | 18.9 | 14.2 | 23.6 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 4.77 | 3.58 | 5.96 | |
| | µmol/l | 18.6 | 14.9 | 22.3 | Siemens Dimension |
| | µg/ml | 4.70 | 3.76 | 5.64 | |
| | µmol/l | 17.9 | 14.3 | 21.5 | Siemens Immulite 2000/2500 |
| | µg/ml | 4.52 | 3.61 | 5.43 | |
| | µmol/l | 20.2 | 16.2 | 24.2 | Siemens Immulite 1000 |
| | µg/ml | 5.10 | 4.09 | 6.11 | |
| | µmol/l | 18.4 | 14.7 | 22.1 | Roche Integra |
| | µg/ml | 4.65 | 3.71 | 5.59 | |
| | µmol/l | 17.9 | 14.3 | 21.5 | Roche Cobas 6000/8000 |
| | µg/ml | 4.52 | 3.61 | 5.43 | |
| | µmol/l | 19.3 | 15.4 | 23.2 | Beckman DxC |
| | µg/ml | 4.87 | 3.89 | 5.85 | |
| | µmol/l | 20.2 | 16.2 | 24.2 | Gravimetric |
| | µg/ml | 5.10 | 4.09 | 6.11 | |
| Primidone | µmol/l | 12.3 | 9.84 | 14.8 | Gravimetric |
| | µg/ml | 2.69 | 2.15 | 3.23 | |
| Progesterone | nmol/l | 3.04 | 2.43 | 3.65 | Abbott Architect |
| | ng/ml | 0.952 | 0.761 | 1.14 | |
| | nmol/l | 4.55 | 3.64 | 5.46 | BioMerieux Vidas |
| | ng/ml | 1.42 | 1.14 | 1.70 | |
| | nmol/l | 2.67 | 1.47 | 3.87 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 0.836 | 0.460 | 1.21 | |
| | nmol/l | 2.88 | 2.30 | 3.46 | Siemens Immulite 2000/2500 |
| | ng/ml | 0.901 | 0.720 | 1.08 | |
| | nmol/l | 2.99 | 2.39 | 3.59 | Siemens Immulite 1000 |
| | ng/ml | 0.936 | 0.748 | 1.12 | |
| | nmol/l | 2.71 | 2.17 | 3.25 | Beckman DxI Prog Cal 33555 |
| | ng/ml | 0.848 | 0.679 | 1.02 | |
| | nmol/l | 3.37 | 2.70 | 4.04 | Roche Elecsys (Prog. II) |
| | ng/ml | 1.05 | 0.845 | 1.26 | |
| | nmol/l | 2.19 | 1.75 | 2.63 | Tosoh Series |
| | ng/ml | 0.685 | 0.548 | 0.822 | |
| | nmol/l | 2.51 | 2.01 | 3.01 | Vitros ECi |
| | ng/ml | 0.786 | 0.629 | 0.943 | |
| | nmol/l | 3.55 | 2.84 | 4.26 | Roche Cobas 4000/e411 (Prog. II) |
| | ng/ml | 1.11 | 0.889 | 1.33 | |
| | nmol/l | 3.66 | 2.93 | 4.39 | Roche Cobas 6000/8000 (Prog. II) |
| | ng/ml | 1.15 | 0.917 | 1.38 | |
| | nmol/l | 2.39 | 1.91 | 2.87 | Diasorin Liaison |
| | ng/ml | 0.748 | 0.598 | 0.898 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Progesterone | nmol/l | 1.87 | 1.50 | 2.24 | Beckman DxI Prog DE Cal A80773 |
| | ng/ml | 0.585 | 0.470 | 0.700 | |
| | nmol/l | 3.19 | 1.75 | 4.63 | Siemens Centaur CP |
| | ng/ml | 0.998 | 0.549 | 1.45 | |
| | nmol/l | 2.33 | 1.86 | 2.80 | Fujirebio Lumipulse G Series |
| | ng/ml | 0.729 | 0.582 | 0.876 | |
| | nmol/l | 3.53 | 2.82 | 4.24 | Roche Cobas 6000/8000 (Prog. III) |
| | ng/ml | 1.10 | 0.883 | 1.32 | |
| | nmol/l | 3.77 | 3.02 | 4.52 | Roche Elecsys (Prog. III) |
| | ng/ml | 1.18 | 0.945 | 1.42 | |
| | nmol/l | 3.54 | 2.83 | 4.25 | Roche Cobas 4000/e411 (Prog. III) |
| | ng/ml | 1.11 | 0.886 | 1.33 | |
| | nmol/l | 1.95 | 1.56 | 2.34 | Diasorin Liaison XL |
| | ng/ml | 0.610 | 0.488 | 0.732 | |
| Prolactin | µU/ml | 133 | 106 | 160 | Abbott Architect |
| | µU/ml | 140 | 112 | 168 | BioMerieux Vidas |
| | µU/ml | 123 | 86.1 | 160 | Siemens Centaur XP/XPT/Classic |
| | µU/ml | 119 | 95.2 | 143 | Siemens Immulite 2000/2500 |
| | µU/ml | 133 | 106 | 160 | Siemens Immulite 1000 |
| | µU/ml | 108 | 86.4 | 130 | Beckman DxI800 |
| | µU/ml | 107 | 85.6 | 128 | Roche Elecsys |
| | µU/ml | 129 | 103 | 155 | Diasorin Liaison |
| | µU/ml | 113 | 90.4 | 136 | Beckman Access |
| | µU/ml | 126 | 101 | 151 | Tosoh Series |
| | µU/ml | 199 | 159 | 239 | Vitros ECi |
| | µU/ml | 107 | 85.6 | 128 | Roche Elecsys/E170/Cobas 6000/8000 PRLII |
| | µU/ml | 134 | 107 | 161 | Immunotech IRMA |
| | µU/ml | 109 | 87.2 | 131 | Roche Cobas E411 |
| | µU/ml | 106 | 84.8 | 127 | Roche Cobas 6000/8000 |
| | µU/ml | 151 | 121 | 181 | Fujirebio Lumipulse G Series |
| | µU/ml | 113 | 79.1 | 147 | Siemens Centaur CP |
| | µU/ml | 184 | 147 | 221 | Mindray CL-2000i |
| | µU/ml | 126 | 101 | 151 | Diasorin Liaison XL |
| PSA Free | ng/ml = µg/l | 1.48 | 1.11 | 1.85 | Abbott Architect |
| | ng/ml = µg/l | 1.14 | 0.855 | 1.43 | Siemens Centaur XP/XPT/Classic |
| | ng/ml = µg/l | 1.18 | 0.885 | 1.48 | Siemens Immulite 2000/2500 |
| | ng/ml = µg/l | 1.02 | 0.765 | 1.28 | Siemens Immulite 1000 |
| | ng/ml = µg/l | 1.39 | 1.04 | 1.74 | Beckman DXI standardised to Hybritech |
| | ng/ml = µg/l | 0.890 | 0.668 | 1.11 | Roche Elecsys |
| | ng/ml = µg/l | 0.782 | 0.587 | 0.978 | Diasorin Liaison |
| | ng/ml = µg/l | 1.50 | 1.13 | 1.88 | Beckman Access standardised to Hybritech |
| | ng/ml = µg/l | 0.805 | 0.604 | 1.01 | Tosoh Series |
| | ng/ml = µg/l | 0.890 | 0.668 | 1.11 | Roche Cobas E411 |
| | ng/ml = µg/l | 0.901 | 0.676 | 1.13 | Roche Cobas 6000/8000 |
| | ng/ml = µg/l | 1.29 | 0.968 | 1.61 | Beckman DxI800 standardised to WHO IRP96/670 |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| PSA Free | ng/ml = µg/l | 1.48 | 1.11 | 1.85 | Beckman Access standardised to WHO IRP96/670 |
| | ng/ml = µg/l | 0.442 | 0.332 | 0.553 | Ortho Vitros 3600/5600/ECi PSA II |
| | ng/ml = µg/l | 0.963 | 0.722 | 1.20 | Fujirebio Lumipulse G Series |
| | ng/ml = µg/l | 0.771 | 0.578 | 0.964 | Diasorin Liaison XL |
| PSA Total | ng/ml = µg/l | 1.40 | 1.05 | 1.75 | Abbott Architect |
| | ng/ml = µg/l | 1.65 | 1.24 | 2.06 | BioMerieux Vidas |
| | ng/ml = µg/l | 1.75 | 1.31 | 2.19 | bioMerieux VIDAS TPSA |
| | ng/ml = µg/l | 1.57 | 1.18 | 1.96 | Siemens Centaur XP/XPT/Classic |
| | ng/ml = µg/l | 0.692 | 0.519 | 0.865 | Siemens Immulite 2000/2500 1st generation |
| | ng/ml = µg/l | 0.684 | 0.513 | 0.855 | Siemens Immulite 2000/2500 3rd generation |
| | ng/ml = µg/l | 0.736 | 0.552 | 0.920 | Siemens Immulite 1000 1st generation |
| | ng/ml = µg/l | 2.05 | 1.54 | 2.56 | Beckman DxI standardisd to Hybritech |
| | ng/ml = µg/l | 1.71 | 1.28 | 2.14 | Beckman DxI800 standardised to WHO IRP96/670 |
| | ng/ml = µg/l | 1.90 | 1.43 | 2.38 | Roche Elecsys |
| | ng/ml = µg/l | 0.920 | 0.690 | 1.15 | Diasorin Liaison |
| | ng/ml = µg/l | 2.10 | 1.58 | 2.63 | Beckman Access standardised to Hybritech |
| | ng/ml = µg/l | 2.06 | 1.55 | 2.58 | Beckman Access standardised to WHO IRP96/670 |
| | ng/ml = µg/l | 1.18 | 0.885 | 1.48 | Tosoh Series |
| | ng/ml = µg/l | 1.81 | 1.36 | 2.26 | Vitros ECi |
| | ng/ml = µg/l | 2.37 | 1.78 | 2.96 | CIS RIA Coated tube |
| | ng/ml = µg/l | 1.87 | 1.40 | 2.34 | Roche Cobas E411 |
| | ng/ml = µg/l | 1.94 | 1.46 | 2.43 | Roche Cobas 6000/8000 |
| | ng/ml = µg/l | 1.80 | 1.35 | 2.25 | SNIBE Maglumi Analysers |
| | ng/ml = µg/l | 1.28 | 0.960 | 1.60 | Fujirebio Lumipulse G Series |
| | ng/ml = µg/l | 1.89 | 1.42 | 2.36 | Ortho Vitros 3600/5600/ECi PSA II |
| | ng/ml = µg/l | 1.51 | 1.13 | 1.89 | Siemens Centaur CP |
| | ng/ml = µg/l | 0.845 | 0.634 | 1.06 | Diasorin Liaison XL |
| Salicylic Acid | mmol/l | 0.286 | 0.230 | 0.340 | Gravimetric |
| | mg/dl | 3.95 | 3.18 | 4.70 | |
| SHBG | nmol/l | 12.4 | 9.92 | 14.9 | Siemens Immulite 1000 |
| | nmol/l | 13.0 | 10.4 | 15.6 | Siemens Immulite 2000/2500 |
| | nmol/l | 12.7 | 10.2 | 15.2 | Abbott Architect |
| | nmol/l | 12.3 | 9.84 | 14.8 | Roche Cobas E411 |
| | nmol/l | 11.6 | 9.28 | 13.9 | Roche Cobas 6000/8000 |
| | nmol/l | 11.7 | 9.36 | 14.0 | Beckman DxI800 |
| T Uptake | %U | 33.0 | 27.1 | 38.9 | Siemens Immulite 2000 |
| Testosterone | nmol/l | 2.17 | 1.74 | 2.60 | Abbott Architect |
| | ng/ml | 0.625 | 0.501 | 0.749 | |
| | ng/dl | 62.5 | 50.1 | 74.9 | |
| | nmol/l | 1.12 | 0.896 | 1.34 | BioMerieux Vidas |
| | ng/ml | 0.323 | 0.258 | 0.388 | |
| | ng/dl | 32.3 | 25.8 | 38.8 | |
| | nmol/l | 1.68 | 1.09 | 2.27 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 0.484 | 0.315 | 0.653 | |
| | ng/dl | 48.4 | 31.5 | 65.3 | |
| | nmol/l | 1.64 | 1.31 | 1.97 | CIS RIA Coated tube |
| | ng/ml | 0.472 | 0.377 | 0.567 | |
| | ng/dl | 47.2 | 37.7 | 56.7 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Testosterone | nmol/l | 1.16 | 0.928 | 1.39 | Siemens Immulite 2000/2500 |
| | ng/ml | 0.334 | 0.267 | 0.401 | |
| | ng/dl | 33.4 | 26.7 | 40.1 | |
| | nmol/l | 1.55 | 1.24 | 1.86 | Beckman DxI800 |
| | ng/ml | 0.446 | 0.357 | 0.535 | |
| | ng/dl | 44.6 | 35.7 | 53.5 | |
| | nmol/l | 1.70 | 1.36 | 2.04 | Beckman Access |
| | ng/ml | 0.490 | 0.392 | 0.588 | |
| | ng/dl | 49.0 | 39.2 | 58.8 | |
| | nmol/l | 1.17 | 0.936 | 1.40 | Tosoh Series |
| | ng/ml | 0.337 | 0.270 | 0.404 | |
| | ng/dl | 33.7 | 27.0 | 40.4 | |
| | nmol/l | 0.988 | 0.790 | 1.19 | Vitros ECi |
| | ng/ml | 0.285 | 0.228 | 0.342 | |
| | ng/dl | 28.5 | 22.8 | 34.2 | |
| | nmol/l | 1.78 | 1.42 | 2.14 | Roche Cobas 6000 Test 2 |
| | ng/ml | 0.513 | 0.409 | 0.617 | |
| | ng/dl | 51.3 | 40.9 | 61.7 | |
| | nmol/l | 1.83 | 1.46 | 2.20 | Roche Elecsys Test II |
| | ng/ml | 0.527 | 0.420 | 0.634 | |
| | ng/dl | 52.7 | 42.0 | 63.4 | |
| | nmol/l | 1.88 | 1.50 | 2.26 | Roche Cobas 4000/e411 Test II |
| | ng/ml | 0.541 | 0.432 | 0.650 | |
| | ng/dl | 54.1 | 43.2 | 65.0 | |
| | nmol/l | 2.13 | 1.70 | 2.56 | Abbott Architect 2nd Generation |
| | ng/ml | 0.613 | 0.490 | 0.736 | |
| | ng/dl | 61.3 | 49.0 | 73.6 | |
| | nmol/l | 1.54 | 1.00 | 2.08 | Siemens Centaur CP |
| | ng/ml | 0.444 | 0.289 | 0.599 | |
| | ng/dl | 44.4 | 28.9 | 59.9 | |
| | nmol/l | 1.13 | 0.904 | 1.36 | BioMerieux Vidas Testosterone II |
| | ng/ml | 0.325 | 0.260 | 0.390 | |
| | ng/dl | 32.5 | 26.0 | 39.0 | |
| | nmol/l | 1.18 | 0.944 | 1.42 | Mindray CL-2000i |
| | ng/ml | 0.340 | 0.272 | 0.408 | |
| | ng/dl | 34.0 | 27.2 | 40.8 | |
| | nmol/l | 1.70 | 1.11 | 2.29 | Siemens Centaur TST II |
| | ng/ml | 0.490 | 0.319 | 0.661 | |
| | ng/dl | 49.0 | 31.9 | 66.1 | |
| | nmol/l | 0.871 | 0.697 | 1.05 | Diasorin Liaison XL |
| | ng/ml | 0.251 | 0.201 | 0.301 | |
| | ng/dl | 25.1 | 20.1 | 30.1 | |
| Theophylline | µmol/l | 28.2 | 22.6 | 33.8 | Roche Integra |
| | µg/ml | 5.08 | 4.07 | 6.09 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Theophylline | µmol/l | 25.0 | 20.0 | 30.0 | Abbott Architect |
| | µg/ml | 4.51 | 3.60 | 5.42 | |
| | µmol/l | 25.8 | 20.6 | 31.0 | Roche Cobas 6000/8000 |
| | µg/ml | 4.65 | 3.71 | 5.59 | |
| | µmol/l | 22.2 | 17.8 | 26.6 | Beckman DxC |
| | µg/ml | 4.00 | 3.21 | 4.79 | |
| | µmol/l | 24.7 | 19.8 | 29.6 | Beckman AU400/600/640/2700/5400 |
| | µg/ml | 4.45 | 3.57 | 5.33 | |
| | µmol/l | 28.3 | 22.6 | 34.0 | Gravimetric |
| | µg/ml | 5.10 | 4.07 | 6.13 | |
| Thyroglobulin | ng/ml | 0.200 | 0.150 | 0.250 | Siemens Immulite 1000 |
| | ng/ml | 2.15 | 1.61 | 2.69 | Roche Elecsys |
| | ng/ml | 1.44 | 1.08 | 1.80 | Beckman DxI800 |
| | ng/ml | 2.10 | 1.58 | 2.63 | Roche Cobas E411 |
| | ng/ml | 2.06 | 1.55 | 2.58 | Roche Cobas 6000/8000 |
| | ng/ml | 1.51 | 1.13 | 1.89 | Beckman Access |
| | ng/ml | 1.57 | 1.18 | 1.96 | Abbott Architect 2000i |
| | ng/ml | 1.81 | 1.36 | 2.26 | Tosoh Series |
| | ng/ml | 2.06 | 1.55 | 2.58 | Roche Cobas 6000 TGII |
| | ng/ml | 2.12 | 1.59 | 2.65 | Roche Elecsys TGII |
| | ng/ml | 2.11 | 1.58 | 2.64 | Roche Cobas 4000/E411 TGII |
| Thyroid Stimulating Hormone | µU/ml = mIU/l | 0.081 | 0.065 | 0.097 | Abbott Architect |
| | µU/ml = mIU/l | 0.060 | 0.048 | 0.072 | bioMerieux VIDAS TSH |
| | µU/ml = mIU/l | 0.056 | 0.045 | 0.067 | bioMerieux VIDAS TSH3 Ultrasensitive |
| | µU/ml = mIU/l | 0.092 | 0.063 | 0.121 | Siemens Centaur XP/XPT/Classic |
| | µU/ml = mIU/l | 0.138 | 0.110 | 0.166 | CIS IRMA |
| | µU/ml = mIU/l | 0.089 | 0.061 | 0.117 | Siemens Centaur XP/XPT/Classic 3rd Generation |
| | µU/ml = mIU/l | 0.086 | 0.069 | 0.103 | Siemens Immulite 2000/2500 |
| | µU/ml = mIU/l | 0.108 | 0.086 | 0.130 | Siemens Immulite 1000 |
| | µU/ml = mIU/l | 0.076 | 0.061 | 0.091 | Beckman DxI800 Fast TSH |
| | µU/ml = mIU/l | 0.074 | 0.059 | 0.089 | Beckman DxI800 |
| | µU/ml = mIU/l | 0.117 | 0.094 | 0.140 | Roche Elecsys |
| | µU/ml = mIU/l | 0.115 | 0.092 | 0.138 | Diasorin Liaison |
| | µU/ml = mIU/l | 0.080 | 0.064 | 0.096 | Beckman Access Fast TSH |
| | µU/ml = mIU/l | 0.078 | 0.062 | 0.094 | Beckman Access hyperTSH 3rd Generation |
| | µU/ml = mIU/l | 0.093 | 0.074 | 0.112 | Tosoh Series |
| | µU/ml = mIU/l | 0.146 | 0.117 | 0.175 | Vitros ECi |
| | µU/ml = mIU/l | 0.119 | 0.095 | 0.143 | Roche Cobas E411 |
| | µU/ml = mIU/l | 0.117 | 0.094 | 0.140 | Roche Cobas 6000/8000 |
| | µU/ml = mIU/l | 0.074 | 0.059 | 0.089 | Beckman DxI800 Hyper TSH |
| | µU/ml = mIU/l | 0.089 | 0.061 | 0.117 | Siemens Centaur XP/XPT/Classic TSH3-Ultra |
| | µU/ml = mIU/l | 0.089 | 0.061 | 0.117 | Siemens Centaur CP |
| | µU/ml = mIU/l | 0.086 | 0.058 | 0.114 | Siemens Centaur CP TSH3-Ultra |
| | µU/ml = mIU/l | 0.145 | 0.116 | 0.174 | Mindray CL-2000i |
| | µU/ml = mIU/l | 0.075 | 0.060 | 0.090 | Beckman DxI 600/800 Access (3rd IS) |
| | µU/ml = mIU/l | 0.135 | 0.108 | 0.162 | Diasorin Liaison XL |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Tobramycin | µmol/l | 4.17 | 3.34 | 5.00 | Gravimetric |
| | µg/ml | 1.95 | 1.56 | 2.34 | |
| Total Beta hCG | mU/ml=IU/l | 9.18 | 7.34 | 11.0 | Abbott Architect |
| | IU/ml | 0.009 | 0.007 | 0.011 | |
| | mU/ml=IU/l | 22.5 | 18.0 | 27.0 | BioMerieux Vidas |
| | IU/ml | 0.023 | 0.018 | 0.028 | |
| | mU/ml=IU/l | 13.5 | 8.10 | 18.9 | Siemens Centaur XP/XPT/Classic |
| | IU/ml | 0.014 | 0.008 | 0.019 | |
| | mU/ml=IU/l | 28.4 | 22.7 | 34.1 | Siemens Dimension |
| | IU/ml | 0.028 | 0.023 | 0.033 | |
| | mU/ml=IU/l | 42.1 | 33.7 | 50.5 | Siemens Immulite 2000 |
| | IU/ml | 0.042 | 0.034 | 0.050 | |
| | mU/ml=IU/l | 38.5 | 30.8 | 46.2 | Siemens Immulite 1000 |
| | IU/ml | 0.039 | 0.031 | 0.047 | |
| | mU/ml=IU/l | 10.3 | 8.24 | 12.4 | Beckman DxI800 |
| | IU/ml | 0.010 | 0.008 | 0.012 | |
| | mU/ml=IU/l | 8.95 | 7.16 | 10.7 | Diasorin Liaison |
| | IU/ml | 0.009 | 0.007 | 0.011 | |
| | mU/ml=IU/l | 13.6 | 10.9 | 16.3 | Roche Cobas Core EIA |
| | IU/ml | 0.014 | 0.011 | 0.017 | |
| | mU/ml=IU/l | 10.2 | 8.16 | 12.2 | Beckman Access |
| | IU/ml | 0.010 | 0.008 | 0.012 | |
| | mU/ml=IU/l | 24.2 | 19.4 | 29.0 | Tosoh Series |
| | IU/ml | 0.024 | 0.019 | 0.029 | |
| | mU/ml=IU/l | 26.8 | 21.4 | 32.2 | Vitros ECi |
| | IU/ml | 0.027 | 0.021 | 0.033 | |
| | mU/ml=IU/l | 10.6 | 8.48 | 12.7 | Roche STAT (Intact) |
| | IU/ml | 0.011 | 0.008 | 0.014 | |
| | mU/ml=IU/l | 13.7 | 11.0 | 16.4 | Roche hCG+Beta |
| | IU/ml | 0.014 | 0.011 | 0.017 | |
| | mU/ml=IU/l | 26.1 | 20.9 | 31.3 | SNIBE Maglumi Analysers |
| | IU/ml | 0.026 | 0.021 | 0.031 | |
| | mU/ml=IU/l | 6.85 | 5.48 | 8.22 | Fujirebio Lumipulse G Series |
| | IU/ml | 0.007 | 0.005 | 0.009 | |
| | mU/ml=IU/l | 10.3 | 8.24 | 12.4 | Beckman Access Total BhCG (5th IS) |
| | IU/ml | 0.010 | 0.008 | 0.012 | |
| | mU/ml=IU/l | 10.3 | 8.24 | 12.4 | Beckman DxI Total BhCG (5th IS) |
| | IU/ml | 0.010 | 0.008 | 0.012 | |
| | mU/ml=IU/l | 11.1 | 6.66 | 15.5 | Siemens Centaur CP |
| | IU/ml | 0.011 | 0.007 | 0.016 | |
| | mU/ml=IU/l | 8.69 | 6.95 | 10.4 | Diasorin Liaison XL |
| | IU/ml | 0.009 | 0.007 | 0.011 | |
| Total T3 | nmol/l | 0.713 | 0.535 | 0.891 | Abbott Architect |
| | ng/ml | 0.464 | 0.348 | 0.580 | |
| | ng/dl | 46.4 | 34.8 | 58.0 | |
| | nmol/l | 0.444 | 0.333 | 0.555 | BioMerieux Vidas |
| | ng/ml | 0.289 | 0.217 | 0.361 | |
| | ng/dl | 28.9 | 21.7 | 36.1 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Total T3 | nmol/l | 0.449 | 0.337 | 0.561 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 0.292 | 0.219 | 0.365 | |
| | ng/dl | 29.2 | 21.9 | 36.5 | |
| | nmol/l | 0.616 | 0.462 | 0.770 | Siemens Immulite 2000/2500 |
| | ng/ml | 0.401 | 0.301 | 0.501 | |
| | ng/dl | 40.1 | 30.1 | 50.1 | |
| | nmol/l | 0.616 | 0.462 | 0.770 | Siemens Immulite 1000 |
| | ng/ml | 0.401 | 0.301 | 0.501 | |
| | ng/dl | 40.1 | 30.1 | 50.1 | |
| | nmol/l | 0.902 | 0.677 | 1.13 | Beckman DxI800 |
| | ng/ml | 0.587 | 0.441 | 0.733 | |
| | ng/dl | 58.7 | 44.1 | 73.3 | |
| | nmol/l | 1.22 | 0.915 | 1.53 | Roche Elecsys |
| | ng/ml | 0.794 | 0.596 | 0.992 | |
| | ng/dl | 79.4 | 59.6 | 99.2 | |
| | nmol/l | 1.05 | 0.788 | 1.31 | Beckman Access |
| | ng/ml | 0.684 | 0.513 | 0.855 | |
| | ng/dl | 68.4 | 51.3 | 85.5 | |
| | nmol/l | 0.462 | 0.347 | 0.578 | Tosoh Series |
| | ng/ml | 0.301 | 0.226 | 0.376 | |
| | ng/dl | 30.1 | 22.6 | 37.6 | |
| | nmol/l | 0.645 | 0.484 | 0.806 | Vitros ECi |
| | ng/ml | 0.420 | 0.315 | 0.525 | |
| | ng/dl | 42.0 | 31.5 | 52.5 | |
| | nmol/l | 0.581 | 0.436 | 0.726 | CIS RIA Coated tube |
| | ng/ml | 0.378 | 0.284 | 0.472 | |
| | ng/dl | 37.8 | 28.4 | 47.2 | |
| | nmol/l | 1.15 | 0.863 | 1.44 | Roche Cobas E411 |
| | ng/ml | 0.749 | 0.562 | 0.936 | |
| | ng/dl | 74.9 | 56.2 | 93.6 | |
| | nmol/l | 0.980 | 0.735 | 1.23 | Roche Cobas 6000/8000 |
| | ng/ml | 0.638 | 0.478 | 0.798 | |
| | ng/dl | 63.8 | 47.8 | 79.8 | |
| | nmol/l | 0.879 | 0.659 | 1.10 | Diasorin Liaison XL |
| | ng/ml | 0.572 | 0.429 | 0.715 | |
| | ng/dl | 57.2 | 42.9 | 71.5 | |
| Total T4 | nmol/l | 32.0 | 24.0 | 40.0 | Abbott Architect |
| | µg/dl | 2.50 | 1.87 | 3.13 | |
| | ng/ml | 25.0 | 18.7 | 31.3 | |
| | nmol/l | 29.0 | 21.8 | 36.3 | BioMerieux Vidas |
| | µg/dl | 2.26 | 1.70 | 2.82 | |
| | ng/ml | 22.6 | 17.0 | 28.2 | |
| | nmol/l | 22.0 | 15.4 | 28.6 | Siemens Centaur XP/XPT/Classic |
| | µg/dl | 1.72 | 1.20 | 2.24 | |
| | ng/ml | 17.2 | 12.0 | 22.4 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Total T4 | nmol/l | 23.3 | 17.5 | 29.1 | Siemens Immulite 2000/2500 |
| | µg/dl | 1.82 | 1.37 | 2.27 | |
| | ng/ml | 18.2 | 13.7 | 22.7 | |
| | nmol/l | 22.8 | 17.1 | 28.5 | Siemens Immulite 1000 |
| | µg/dl | 1.78 | 1.33 | 2.23 | |
| | ng/ml | 17.8 | 13.3 | 22.3 | |
| | nmol/l | 16.9 | 12.7 | 21.1 | Beckman DxI800 |
| | µg/dl | 1.32 | 0.991 | 1.65 | |
| | ng/ml | 13.2 | 9.91 | 16.5 | |
| | nmol/l | 36.7 | 27.5 | 45.9 | Roche Elecsys |
| | µg/dl | 2.86 | 2.15 | 3.57 | |
| | ng/ml | 28.6 | 21.5 | 35.7 | |
| | nmol/l | 21.6 | 16.2 | 27.0 | Beckman Access |
| | µg/dl | 1.68 | 1.26 | 2.10 | |
| | ng/ml | 16.8 | 12.6 | 21.0 | |
| | nmol/l | 25.0 | 18.8 | 31.3 | Tosoh Series |
| | µg/dl | 1.95 | 1.47 | 2.43 | |
| | ng/ml | 19.5 | 14.7 | 24.3 | |
| | nmol/l | 27.5 | 20.6 | 34.4 | Vitros ECi |
| | µg/dl | 2.15 | 1.61 | 2.69 | |
| | ng/ml | 21.5 | 16.1 | 26.9 | |
| | nmol/l | 29.1 | 21.8 | 36.4 | CIS RIA Coated tube |
| | µg/dl | 2.27 | 1.70 | 2.84 | |
| | ng/ml | 22.7 | 17.0 | 28.4 | |
| | nmol/l | 36.9 | 27.7 | 46.1 | Roche Cobas E411 |
| | µg/dl | 2.88 | 2.16 | 3.60 | |
| | ng/ml | 28.8 | 21.6 | 36.0 | |
| | nmol/l | 36.3 | 27.2 | 45.4 | Roche Cobas 6000/8000 |
| | µg/dl | 2.83 | 2.12 | 3.54 | |
| | ng/ml | 28.3 | 21.2 | 35.4 | |
| | nmol/l | 29.9 | 22.4 | 37.4 | Immunotech IRMA |
| | µg/dl | 2.33 | 1.75 | 2.91 | |
| | ng/ml | 23.3 | 17.5 | 29.1 | |
| | nmol/l | 32.4 | 24.3 | 40.5 | ELISA |
| | µg/dl | 2.53 | 1.90 | 3.16 | |
| | ng/ml | 25.3 | 19.0 | 31.6 | |
| | nmol/l | 20.8 | 15.6 | 26.0 | Boditech Med Inc i-CHROMA |
| | µg/dl | 1.62 | 1.22 | 2.02 | |
| | ng/ml | 16.2 | 12.2 | 20.2 | |
| | nmol/l | 21.4 | 15.0 | 27.8 | Siemens Centaur CP |
| | µg/dl | 1.67 | 1.17 | 2.17 | |
| | ng/ml | 16.7 | 11.7 | 21.7 | |
| | nmol/l | 33.8 | 25.4 | 42.3 | Diasorin Liaison XL |
| | µg/dl | 2.64 | 1.98 | 3.30 | |
| | ng/ml | 26.4 | 19.8 | 33.0 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Valproic Acid | µmol/l | 155 | 124 | 186 | Abbott Architect |
| | µg/ml | 22.4 | 17.9 | 26.9 | |
| | µmol/l | 203 | 142 | 264 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 29.3 | 20.5 | 38.1 | |
| | µmol/l | 181 | 145 | 217 | Siemens Dimension |
| | µg/ml | 26.1 | 20.9 | 31.3 | |
| | µmol/l | 165 | 132 | 198 | Siemens Immulite 2000/2500 |
| | µg/ml | 23.8 | 19.0 | 28.6 | |
| | µmol/l | 183 | 146 | 220 | Siemens Immulite 1000 |
| | µg/ml | 26.4 | 21.1 | 31.7 | |
| | µmol/l | 195 | 156 | 234 | Roche Integra |
| | µg/ml | 28.1 | 22.5 | 33.7 | |
| | µmol/l | 183 | 146 | 220 | Vitros |
| | µg/ml | 26.4 | 21.1 | 31.7 | |
| | µmol/l | 191 | 153 | 229 | Roche Cobas E411 |
| | µg/ml | 27.6 | 22.1 | 33.1 | |
| | µmol/l | 195 | 156 | 234 | Roche Cobas 6000/8000 |
| | µg/ml | 28.1 | 22.5 | 33.7 | |
| | µmol/l | 194 | 155 | 233 | Beckman DxC |
| | µg/ml | 28.0 | 22.4 | 33.6 | |
| | µmol/l | 198 | 158 | 238 | Beckman AU400/600/640/2700/5400 |
| | µg/ml | 28.6 | 22.8 | 34.4 | |
| | µmol/l | 201 | 161 | 241 | Siemens ADVIA 1200/1650/1800/2400 |
| | µg/ml | 29.0 | 23.2 | 34.8 | |
| | µmol/l | 243 | 194 | 292 | Gravimetric |
| | µg/ml | 35.1 | 28.0 | 42.1 | |
| Vancomycin | µmol/l | 3.68 | 2.94 | 4.42 | Ortho Vitros Microslide Systems |
| | µg/ml | 5.47 | 4.37 | 6.57 | |
| | µmol/l | 3.09 | 2.47 | 3.71 | Abbott Architect |
| | µg/ml | 4.59 | 3.67 | 5.51 | |
| | µmol/l | 2.23 | 1.67 | 2.79 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 3.31 | 2.48 | 4.14 | |
| | µmol/l | 3.04 | 2.43 | 3.65 | Siemens Dimension |
| | µg/ml | 4.52 | 3.61 | 5.43 | |
| | µmol/l | 3.19 | 2.55 | 3.83 | Roche Cobas 6000/8000 |
| | µg/ml | 4.74 | 3.79 | 5.69 | |
| | µmol/l | 2.74 | 2.19 | 3.29 | Beckman DxC |
| | µg/ml | 4.07 | 3.25 | 4.89 | |
| | µmol/l | 3.43 | 2.74 | 4.12 | Gravimetric |
| | µg/ml | 5.10 | 4.07 | 6.12 | |
| Vitamin B12 | pmol/l | 138 | 110 | 166 | Abbott Architect |
| | pg/ml | 187 | 149 | 225 | |
| | pmol/l | 121 | 84.7 | 157 | Siemens Centaur XP/XPT/Classic |
| | pg/ml | 164 | 115 | 213 | |
| | pmol/l | 121 | 96.8 | 145 | Siemens Immulite 1000 |
| | pg/ml | 164 | 131 | 197 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

**Cat. No. IA3109 / IA3112 Lot. No. 1937EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Vitamin B12 | pmol/l | 86.2 | 69.0 | 103 | Beckman DxI800 |
| | pg/ml | 117 | 93.5 | 141 | |
| | pmol/l | 138 | 110 | 166 | Roche Elecsys |
| | pg/ml | 187 | 149 | 225 | |
| | pmol/l | 86.8 | 69.4 | 104 | Beckman Access |
| | pg/ml | 118 | 94.0 | 142 | |
| | pmol/l | 122 | 97.6 | 146 | Tosoh Series |
| | pg/ml | 165 | 132 | 198 | |
| | pmol/l | 133 | 106 | 160 | Vitros ECi |
| | pg/ml | 180 | 144 | 216 | |
| | pmol/l | 100 | 80.0 | 120 | Siemens Dimension |
| | pg/ml | 136 | 108 | 164 | |
| | pmol/l | 115 | 80.5 | 149 | Siemens Centaur CP |
| | pg/ml | 156 | 109 | 203 | |

# IMMUNOASSAY PREMIUM PLUS - LEVEL 2 (IA PREMIUM PLUS 2)

**CAT. NO.** IA3110 **GTIN:** 05055273207262 **SIZE:** 12 x 5 ml
**CAT. NO.** IA3112 **GTIN:** 05055273207286 **SIZE:** 4 x 5 ml
**LOT NO.** 1939EC **EXPIRY:** 2022-12-28

## INTENDED USE
This product is intended for *in vitro* diagnostic use, as assayed quality control material to monitor the accuracy and reproducibility of analytes listed in the package insert.

**This device is for prescription use only.**

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

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

The Abbott Architect CA19-9 assay utilises an antibody/antigen system based on the 1116-NA-19-9 antibody. There are reports that the formulation employed with this system may return elevated concentrations, when compared to other methods for samples expressing high levels of 1116-NA-19-9 reactive determinants.
Health and Safety Data Sheets are available on request.

## STORAGE AND STABILITY
OPENED: Store refrigerated (+2°C to +8°C). Reconstituted serum is stable for 7 days at +2°C to +8°C, if kept capped in original container and free from contamination, or 4 weeks frozen once at –20°C. C-Peptide is stable for 1 day at +2°C to +8°C. Thyroglobulin should be tested within 4 hours of reconstitution when stored at +2°C to +8°C, or within 2 weeks when stored at –20°C. ACTH should be tested immediately after the 30-minute reconstitution period. No frozen stability claim is made for ACTH, Aldosterone and C-Peptide. Only the required amount of product should be removed. After use, any residual product should NOT BE RETURNED to the original vial.

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

Bacterial contamination of the reconstituted serum will cause reductions in the stability of many components. If bacterial contamination is suspected, the vial should be discarded and a fresh vial reconstituted.

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

## MATERIALS PROVIDED
Immunoassay Premium Plus - Level 2: 12 x 5 ml Tri-Level: 4 x 5 ml

## MATERIAL REQUIRED BUT NOT PROVIDED
Volumetric pipette

## VALUE ASSIGNMENT
Each batch of Immunoassay Premium Plus is submitted to a number of external laboratories. Values are assigned from a consensus of results obtained by these laboratories, using a unique statistical analysis. Average values should normally fall within the listed ranges for analytes in the instruments specified in this product insert. However, variations may be caused by instrument reagents and laboratory technique. Therefore, the range produced herein should only be considered as a reference and it is recommended that each laboratory establish its own mean and acceptable ranges. Aldosterone is present in control levels 2 and level 3 only. Parathyroid Hormone (PTH) is present in the control, but no claim is made for the expected value or stability of this analyte.

If a method is unavailable, contact Randox Laboratories - Technical Services, Northern Ireland, tel: +44 (0) 28 9445 1070 or email Technical.Services@randox.com.

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

Rev. 03 Nov '20 ne

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| 17-OH-Progesterone | nmol/l | 9.32 | 6.99 | 11.7 | Immunotech RIA |
| | ng/ml | 3.08 | 2.31 | 3.85 | |
| | nmol/l | 13.0 | 9.75 | 16.3 | DRG ELISA |
| | ng/ml | 4.30 | 3.23 | 5.37 | |
| | nmol/l | 12.3 | 9.23 | 15.4 | DIAsource RIA |
| | ng/ml | 4.07 | 3.06 | 5.08 | |
| | nmol/l | 15.8 | 11.9 | 19.8 | IBL ELISA |
| | ng/ml | 5.23 | 3.94 | 6.52 | |
| 25-OH Vitamin D | nmol/l | 63.6 | 47.7 | 79.5 | Diasorin Liaison |
| | nmol/l | 74.1 | 55.6 | 92.6 | Siemens Centaur XP/XPT/Classic |
| | nmol/l | 49.0 | 36.8 | 61.3 | Roche Vitamin D Total |
| | nmol/l | 51.6 | 38.7 | 64.5 | Abbott Architect |
| | nmol/l | 74.1 | 55.6 | 92.6 | Vitros ECi |
| | nmol/l | 52.8 | 39.6 | 66.0 | Tosoh Series |
| | nmol/l | 54.1 | 40.6 | 67.6 | BioMerieux Vidas |
| | nmol/l | 48.3 | 36.2 | 60.4 | Beckman DxI 600/800 |
| | nmol/l | 52.5 | 39.4 | 65.6 | Fujirebio Lumipulse G Series |
| | nmol/l | 50.9 | 38.2 | 63.6 | Beckman Access 25 OH Vitamin D Total |
| | nmol/l | 51.3 | 38.5 | 64.1 | Abbott Architect (5P02)/ Alinity (8P45) |
| | nmol/l | 62.7 | 47.0 | 78.4 | Diasorin Liaison XL |
| | nmol/l | 56.3 | 42.2 | 70.4 | Roche Vitamin D Total II |
| | nmol/l | 69.9 | 52.4 | 87.4 | Siemens Atellica IM |
| ACTH | pmol/l | 19.1 | 14.3 | 23.9 | Siemens Immulite 2000/2500 |
| | pg/ml | 86.8 | 65.0 | 109 | |
| | pmol/l | 19.2 | 14.4 | 24.0 | Roche Cobas E411 |
| | pg/ml | 87.3 | 65.4 | 109 | |
| | pmol/l | 18.5 | 13.9 | 23.1 | Roche Cobas 6000/8000 |
| | pg/ml | 84.1 | 63.2 | 105 | |
| | pmol/l | 31.8 | 23.9 | 39.8 | CIS IRMA |
| | pg/ml | 145 | 109 | 181 | |
| | pmol/l | 19.4 | 14.6 | 24.3 | Siemens Immulite 1000 |
| | pg/ml | 88.2 | 66.4 | 110 | |
| | pmol/l | 28.8 | 21.6 | 36.0 | Diasorin Liaison XL |
| | pg/ml | 131 | 98.2 | 164 | |
| Aldosterone | pmol/l | 451 | 338 | 564 | DRG ELISA |
| | pg/ml | 163 | 122 | 204 | |
| | pmol/l | 36.5 | 27.4 | 45.6 | CIS RIA |
| | pg/ml | 13.2 | 9.89 | 16.5 | |
| | pmol/l | 289 | 217 | 361 | Diasorin Liaison |
| | pg/ml | 104 | 78.3 | 130 | |
| | pmol/l | 298 | 224 | 373 | Diasorin Liaison XL |
| | pg/ml | 108 | 80.8 | 135 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Alphafoetoprotein | KIU/l = IU/ml | 44.3 | 35.4 | 53.2 | Abbott AFP-EIA |
| | ng/ml | 53.6 | 42.8 | 64.4 | |
| | KIU/l = IU/ml | 42.9 | 34.3 | 51.5 | Abbott Architect |
| | ng/ml | 51.9 | 41.5 | 62.3 | |
| | KIU/l = IU/ml | 41.6 | 33.3 | 49.9 | BioMerieux Vidas |
| | ng/ml | 50.3 | 40.3 | 60.3 | |
| | KIU/l = IU/ml | 50.0 | 39.5 | 60.5 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 60.5 | 47.8 | 73.2 | |
| | KIU/l = IU/ml | 42.6 | 34.1 | 51.1 | Siemens Immulite 2000/2500 |
| | ng/ml | 51.5 | 41.3 | 61.7 | |
| | KIU/l = IU/ml | 43.0 | 34.4 | 51.6 | Siemens Immulite 1000 |
| | ng/ml | 52.0 | 41.6 | 62.4 | |
| | KIU/l = IU/ml | 41.3 | 33.0 | 49.6 | Beckman DxI800 |
| | ng/ml | 50.0 | 39.9 | 60.1 | |
| | KIU/l = IU/ml | 47.8 | 38.2 | 57.4 | Roche Elecsys |
| | ng/ml | 57.8 | 46.2 | 69.4 | |
| | KIU/l = IU/ml | 46.2 | 37.0 | 55.4 | Diasorin Liaison |
| | ng/ml | 55.9 | 44.8 | 67.0 | |
| | KIU/l = IU/ml | 43.9 | 35.1 | 52.7 | Beckman Access |
| | ng/ml | 53.1 | 42.5 | 63.7 | |
| | KIU/l = IU/ml | 42.3 | 33.8 | 50.8 | Tosoh Series |
| | ng/ml | 51.2 | 40.9 | 61.5 | |
| | KIU/l = IU/ml | 44.4 | 35.5 | 53.3 | Vitros ECi |
| | ng/ml | 46.2 | 37.0 | 55.4 | |
| | KIU/l = IU/ml | 48.7 | 39.0 | 58.4 | Roche Cobas 6000/8000 |
| | ng/ml | 58.9 | 47.2 | 70.6 | |
| | KIU/l = IU/ml | 75.8 | 60.6 | 91.0 | CIS IRMA |
| | ng/ml | 91.7 | 73.3 | 110 | |
| | KIU/l = IU/ml | 49.0 | 39.2 | 58.8 | Roche Cobas E411 |
| | ng/ml | 59.3 | 47.4 | 71.2 | |
| | KIU/l = IU/ml | 43.0 | 34.4 | 51.6 | Fujirebio Lumipulse G Series |
| | ng/ml | 52.0 | 41.6 | 62.4 | |
| | KIU/l = IU/ml | 50.0 | 39.5 | 60.5 | Siemens Centaur CP |
| | ng/ml | 60.5 | 47.8 | 73.2 | |
| | KIU/l = IU/ml | 46.8 | 37.4 | 56.2 | Diasorin Liaison XL |
| | ng/ml | 56.6 | 45.3 | 67.9 | |
| Amikacin | µmol/l | 14.8 | 11.8 | 17.8 | Roche Cobas 6000/8000 |
| | µg/ml | 8.67 | 6.91 | 10.4 | |
| Androstenedione | nmol/l | 12.2 | 9.15 | 15.3 | Siemens Immulite 2000 |
| | ng/ml | 3.50 | 2.63 | 4.37 | |
| | nmol/l | 7.08 | 5.31 | 8.85 | Diasorin Liaison XL |
| | ng/ml | 2.03 | 1.52 | 2.54 | |
| Beta-2-microglobulin | µg/ml = mg/l | 2.74 | 2.19 | 3.29 | Abbott Architect |
| | µg/ml = mg/l | 3.04 | 2.43 | 3.65 | BioMerieux Vidas |
| | µg/ml = mg/l | 2.77 | 2.22 | 3.32 | Behring Nephelometer |
| | µg/ml = mg/l | 2.54 | 2.03 | 3.05 | Siemens Immulite 2000/2500 |

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Beta-2-microglobulin | µg/ml = mg/l | 2.79 | 2.23 | 3.35 | Siemens Immulite 1000 |
| | µg/ml = mg/l | 2.36 | 1.89 | 2.83 | Diasorin Liaison |
| | µg/ml = mg/l | 2.76 | 2.21 | 3.31 | Tosoh Series |
| | µg/ml = mg/l | 2.86 | 2.29 | 3.43 | Roche Cobas 6000/8000 |
| | µg/ml = mg/l | 2.18 | 1.74 | 2.62 | Fujirebio Lumipulse G Series |
| C-Peptide | nmol/l | 2.110 | 1.580 | 2.640 | Siemens Immulite 2000/2500 |
| | ng/ml | 6.37 | 4.77 | 7.97 | |
| | nmol/l | 2.080 | 1.560 | 2.600 | Roche Elecsys |
| | ng/ml | 6.28 | 4.71 | 7.85 | |
| | nmol/l | 2.180 | 1.640 | 2.730 | Roche Cobas 6000/8000 |
| | ng/ml | 6.58 | 4.95 | 8.21 | |
| | nmol/l | 2.050 | 1.540 | 2.560 | Siemens Immulite 1000 |
| | ng/ml | 6.19 | 4.65 | 7.73 | |
| | nmol/l | 2.130 | 1.600 | 2.660 | Diasorin Liaison |
| | ng/ml | 6.43 | 4.83 | 8.03 | |
| | nmol/l | 2.200 | 1.650 | 2.750 | Roche Cobas E411 |
| | ng/ml | 6.64 | 4.98 | 8.30 | |
| | nmol/l | 1.960 | 1.470 | 2.450 | Abbott Architect |
| | ng/ml | 5.92 | 4.44 | 7.40 | |
| | nmol/l | 1.560 | 1.170 | 1.950 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 4.71 | 3.53 | 5.89 | |
| | nmol/l | 1.930 | 1.450 | 2.410 | Tosoh Series |
| | ng/ml | 5.83 | 4.38 | 7.28 | |
| | nmol/l | 2.270 | 1.700 | 2.840 | Diasorin Liaison XL |
| | ng/ml | 6.85 | 5.13 | 8.57 | |
| | nmol/l | 1.530 | 1.150 | 1.910 | Siemens Atellica IM |
| | ng/ml | 4.62 | 3.47 | 5.77 | |
| CA 15-3 | U/ml | 40.5 | 32.4 | 48.6 | Abbott Architect |
| | U/ml | 36.1 | 28.9 | 43.3 | BioMerieux Vidas |
| | U/ml | 38.5 | 26.2 | 50.8 | Siemens Centaur XP/XPT/Classic |
| | U/ml | 39.8 | 31.8 | 47.8 | Siemens Immulite 2000/2500 |
| | U/ml | 49.9 | 39.9 | 59.9 | Siemens Immulite 1000 |
| | U/ml | 18.4 | 14.7 | 22.1 | Beckman DxI800 |
| | U/ml | 39.2 | 31.4 | 47.0 | Roche Elecsys |
| | U/ml | 41.2 | 33.0 | 49.4 | Diasorin Liaison |
| | U/ml | 18.1 | 14.5 | 21.7 | Beckman Access |
| | U/ml | 36.5 | 29.2 | 43.8 | Tosoh Series |
| | U/ml | 36.5 | 29.2 | 43.8 | Vitros ECi |
| | U/ml | 40.2 | 32.2 | 48.2 | Roche Cobas 6000/8000 |
| | U/ml | 40.1 | 32.1 | 48.1 | Roche Cobas E411 |
| | U/ml | 47.8 | 38.2 | 57.4 | Fujirebio Lumipulse G Series |
| | U/ml | 38.6 | 26.2 | 51.0 | Siemens Centaur CP |
| | U/ml | 37.5 | 30.0 | 45.0 | Diasorin Liaison XL |
| CA 19-9 | U/ml | 80.2 | 64.2 | 96.2 | BioMerieux Vidas |
| | U/ml | 100 | 68.0 | 132 | Siemens Centaur XP/XPT/Classic |
| | U/ml | 76.9 | 61.5 | 92.3 | Siemens Immulite 2000/2500 |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| CA 19-9 | U/ml | 76.7 | 61.4 | 92.0 | Siemens Immulite 1000 |
| | U/ml | 70.8 | 56.6 | 85.0 | Beckman DxI800 |
| | U/ml | 54.8 | 43.8 | 65.8 | Roche Elecsys |
| | U/ml | 78.2 | 62.6 | 93.8 | Diasorin Liaison |
| | U/ml | 82.2 | 65.8 | 98.6 | Beckman Access |
| | U/ml | 43.9 | 35.1 | 52.7 | Tosoh Series |
| | U/ml | 112 | 89.6 | 134 | Vitros ECi |
| | U/ml | 205 | 164 | 246 | Abbott Architect XR/XR2 kit |
| | U/ml | 54.4 | 43.5 | 65.3 | Roche Cobas 6000/8000 |
| | U/ml | 56.0 | 44.8 | 67.2 | Roche Cobas E411 |
| | U/ml | 97.1 | 77.7 | 117 | Fujirebio Lumipulse G Series |
| | U/ml | 98.1 | 66.7 | 130 | Siemens Centaur CP |
| | U/ml | 56.0 | 44.8 | 67.2 | Mindray CL-2000i |
| | U/ml | 87.1 | 69.7 | 105 | Diasorin Liaison XL |
| CA125 | U/ml | 97.9 | 78.3 | 117 | Abbott Architect |
| | U/ml | 73.3 | 58.6 | 88.0 | BioMerieux Vidas |
| | U/ml | 82.2 | 55.9 | 109 | Siemens Centaur XP/XPT/Classic OV Kit |
| | U/ml | 83.3 | 56.6 | 110 | Siemens Centaur XP/XPT/Classic CA125 II kit |
| | U/ml | 79.9 | 63.9 | 95.9 | Siemens Immulite 2000/2500 |
| | U/ml | 85.1 | 68.1 | 102 | Siemens Immulite 1000 |
| | U/ml | 67.9 | 54.3 | 81.5 | Beckman DxI800 |
| | U/ml | 71.9 | 57.5 | 86.3 | Roche Elecsys |
| | U/ml | 81.6 | 65.3 | 97.9 | Diasorin Liaison |
| | U/ml | 70.1 | 56.1 | 84.1 | Beckman Access |
| | U/ml | 125 | 100 | 150 | Tosoh Series |
| | U/ml | 72.0 | 57.6 | 86.4 | Vitros ECi |
| | U/ml | 72.9 | 58.3 | 87.5 | Roche Cobas E411 |
| | U/ml | 71.8 | 57.4 | 86.2 | Roche Cobas 6000/8000 |
| | U/ml | 70.5 | 56.4 | 84.6 | Fujirebio Lumipulse G Series |
| | U/ml | 87.2 | 59.3 | 115 | Siemens Centaur CP CA125 II kit |
| | U/ml | 151 | 121 | 181 | Mindray CL-2000i |
| | U/ml | 89.3 | 71.4 | 107 | Diasorin Liaison XL |
| Carbamazepine | µmol/l | 37.6 | 30.1 | 45.1 | Abbott Architect |
| | µg/ml | 8.89 | 7.12 | 10.7 | |
| | µmol/l | 40.8 | 28.6 | 53.0 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 9.65 | 6.76 | 12.5 | |
| | µmol/l | 36.0 | 28.8 | 43.2 | Siemens Dimension |
| | µg/ml | 8.51 | 6.81 | 10.2 | |
| | µmol/l | 33.8 | 27.0 | 40.6 | Siemens Immulite 2000/2500 |
| | µg/ml | 7.99 | 6.38 | 9.60 | |
| | µmol/l | 34.5 | 27.6 | 41.4 | Siemens Immulite 1000 |
| | µg/ml | 8.16 | 6.52 | 9.80 | |
| | µmol/l | 38.9 | 31.1 | 46.7 | Roche Integra |
| | µg/ml | 9.20 | 7.35 | 11.1 | |
| | µmol/l | 36.5 | 29.2 | 43.8 | Vitros |
| | µg/ml | 8.63 | 6.90 | 10.4 | |

RANDOX

## IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Carbamazepine | µmol/l | 36.2 | 29.0 | 43.4 | Roche Cobas E411 |
| | µg/ml | 8.56 | 6.86 | 10.3 | |
| | µmol/l | 38.1 | 30.5 | 45.7 | Roche Cobas 6000/8000 |
| | µg/ml | 9.01 | 7.21 | 10.8 | |
| | µmol/l | 36.7 | 29.4 | 44.0 | Beckman DxC |
| | µg/ml | 8.68 | 6.95 | 10.4 | |
| | µmol/l | 40.7 | 32.6 | 48.8 | Beckman AU400/600/640/2700/5400 |
| | µg/ml | 9.62 | 7.71 | 11.5 | |
| Carcinoembryonic Antigen (CEA) | ng/ml = µg/l | 26.1 | 20.9 | 31.3 | Abbott Architect |
| | ng/ml = µg/l | 24.5 | 19.6 | 29.4 | BioMerieux Vidas |
| | ng/ml = µg/l | 25.9 | 17.6 | 34.2 | Siemens Centaur XP/XPT/Classic |
| | ng/ml = µg/l | 18.1 | 14.5 | 21.7 | CIS RIA Coated tube |
| | ng/ml = µg/l | 32.3 | 25.8 | 38.8 | Siemens Immulite 2000/2500 |
| | ng/ml = µg/l | 30.9 | 24.7 | 37.1 | Siemens Immulite 1000 |
| | ng/ml = µg/l | 23.3 | 18.6 | 28.0 | Beckman DxI800 |
| | ng/ml = µg/l | 22.8 | 18.2 | 27.4 | Roche Elecsys |
| | ng/ml = µg/l | 21.7 | 17.4 | 26.0 | Diasorin Liaison |
| | ng/ml = µg/l | 24.9 | 19.9 | 29.9 | Beckman Access |
| | ng/ml = µg/l | 28.5 | 22.8 | 34.2 | Tosoh Series |
| | ng/ml = µg/l | 25.8 | 20.6 | 31.0 | Vitros ECi |
| | ng/ml = µg/l | 22.1 | 17.7 | 26.5 | Roche Cobas 6000/8000 |
| | ng/ml = µg/l | 22.4 | 17.9 | 26.9 | Roche Cobas E411 |
| | ng/ml = µg/l | 29.1 | 23.3 | 34.9 | Fujirebio Lumipulse G Series |
| | ng/ml = µg/l | 25.8 | 17.5 | 34.1 | Siemens Centaur CP |
| | ng/ml = µg/l | 18.9 | 15.1 | 22.7 | Mindray CL-2000i |
| | ng/ml = µg/l | 23.9 | 19.1 | 28.7 | Diasorin Liaison XL |
| Cortisol | nmol/l | 526 | 395 | 658 | Abbott Architect |
| | µg/dl | 18.9 | 14.2 | 23.6 | |
| | nmol/l | 520 | 390 | 650 | BioMerieux Vidas |
| | µg/dl | 18.7 | 14.0 | 23.4 | |
| | nmol/l | 669 | 462 | 876 | Siemens Centaur XP/XPT/Classic |
| | µg/dl | 24.1 | 16.6 | 31.6 | |
| | nmol/l | 490 | 368 | 613 | CIS RIA |
| | µg/dl | 17.6 | 13.2 | 22.0 | |
| | nmol/l | 588 | 441 | 735 | Siemens Immulite 2000/2500 |
| | µg/dl | 21.2 | 15.9 | 26.5 | |
| | nmol/l | 605 | 454 | 756 | Siemens Immulite 1000 |
| | µg/dl | 21.8 | 16.3 | 27.3 | |
| | nmol/l | 558 | 419 | 698 | Beckman DxI800 |
| | µg/dl | 20.1 | 15.1 | 25.1 | |
| | nmol/l | 632 | 474 | 790 | Roche Elecsys |
| | µg/dl | 22.8 | 17.1 | 28.5 | |
| | nmol/l | 554 | 416 | 693 | Diasorin Liaison |
| | µg/dl | 19.9 | 15.0 | 24.8 | |
| | nmol/l | 607 | 455 | 759 | Beckman Access |
| | µg/dl | 21.9 | 16.4 | 27.4 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Cortisol | nmol/l | 656 | 492 | 820 | Tosoh Series |
| | µg/dl | 23.6 | 17.7 | 29.5 | |
| | nmol/l | 553 | 415 | 691 | Vitros ECi |
| | µg/dl | 19.9 | 14.9 | 24.9 | |
| | nmol/l | 617 | 463 | 771 | Roche Cobas 6000/8000 |
| | µg/dl | 22.2 | 16.7 | 27.7 | |
| | nmol/l | 671 | 503 | 839 | Roche Cobas E411 |
| | µg/dl | 24.2 | 18.1 | 30.3 | |
| | nmol/l | 666 | 460 | 872 | Siemens Centaur CP |
| | µg/dl | 24.0 | 16.6 | 31.4 | |
| | nmol/l | 653 | 490 | 816 | Roche Cobas 4000/e411 Gen II |
| | µg/dl | 23.5 | 17.6 | 29.4 | |
| | nmol/l | 603 | 452 | 754 | Roche Cobas 6000/8000 Gen II |
| | µg/dl | 21.7 | 16.3 | 27.1 | |
| | nmol/l | 635 | 476 | 794 | Roche Elecsys Gen II |
| | µg/dl | 22.9 | 17.1 | 28.7 | |
| DHEA-S | µmol/l | 13.9 | 11.1 | 16.7 | Abbott Architect |
| | µmol/l | 11.6 | 9.28 | 13.9 | Siemens Immulite 2000/2500 |
| | µmol/l | 11.6 | 9.28 | 13.9 | Siemens Immulite 1000 |
| | µmol/l | 11.5 | 9.20 | 13.8 | Beckman DxI800 |
| | µmol/l | 17.3 | 13.8 | 20.8 | Roche Elecsys |
| | µmol/l | 12.2 | 9.76 | 14.6 | Beckman Access |
| | µmol/l | 10.2 | 8.16 | 12.2 | Diasorin Liaison |
| | µmol/l | 11.5 | 7.48 | 15.5 | Siemens Centaur XP/XPT/Classic |
| | µmol/l | 16.9 | 13.5 | 20.3 | Roche Cobas E411 |
| | µmol/l | 16.8 | 13.4 | 20.2 | Roche Cobas 6000/8000 |
| | µmol/l | 15.5 | 12.4 | 18.6 | Immunotech RIA |
| | µmol/l | 11.1 | 8.88 | 13.3 | Diasorin Liaison XL |
| Digoxin | nmol/l | 2.49 | 1.99 | 2.99 | Abbott Architect |
| | ng/ml | 1.94 | 1.55 | 2.33 | |
| | nmol/l | 2.85 | 2.28 | 3.42 | BioMerieux Vidas |
| | ng/ml | 2.23 | 1.78 | 2.68 | |
| | nmol/l | 3.23 | 2.49 | 3.97 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 2.52 | 1.94 | 3.10 | |
| | nmol/l | 3.03 | 2.42 | 3.64 | Siemens Dimension |
| | ng/ml | 2.37 | 1.89 | 2.85 | |
| | nmol/l | 3.13 | 2.50 | 3.76 | Siemens Immulite 2000/2500 |
| | ng/ml | 2.44 | 1.95 | 2.93 | |
| | nmol/l | 3.03 | 2.42 | 3.64 | Beckman DxI800 |
| | ng/ml | 2.37 | 1.89 | 2.85 | |
| | nmol/l | 3.00 | 2.40 | 3.60 | Roche Integra |
| | ng/ml | 2.34 | 1.87 | 2.81 | |
| | nmol/l | 3.00 | 2.40 | 3.60 | Beckman Access |
| | ng/ml | 2.34 | 1.87 | 2.81 | |
| | nmol/l | 2.88 | 2.30 | 3.46 | Vitros |
| | ng/ml | 2.25 | 1.80 | 2.70 | |

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Digoxin | nmol/l | 2.99 | 2.39 | 3.59 | Roche Cobas 6000/8000 |
| | ng/ml | 2.34 | 1.87 | 2.81 | |
| | nmol/l | 3.16 | 2.53 | 3.79 | Beckman AU400/600/640/2700/5400 |
| | ng/ml | 2.47 | 1.98 | 2.96 | |
| | nmol/l | 3.18 | 2.54 | 3.82 | Roche Cobas 4000/E411 |
| | ng/ml | 2.48 | 1.98 | 2.98 | |
| Ferritin | ng/ml = µg/l | 103 | 82.4 | 124 | Abbott Architect |
| | ng/ml = µg/l | 74.2 | 59.4 | 89.0 | BioMerieux Vidas |
| | ng/ml = µg/l | 87.1 | 65.3 | 109 | Siemens Centaur XP/XPT/Classic |
| | ng/ml = µg/l | 92.8 | 74.2 | 111 | Siemens Dimension |
| | ng/ml = µg/l | 85.4 | 68.3 | 102 | Siemens Immulite 2000/2500 |
| | ng/ml = µg/l | 74.8 | 59.8 | 89.8 | Siemens Immulite 1000 |
| | ng/ml = µg/l | 67.0 | 53.6 | 80.4 | Beckman DxI800 |
| | ng/ml = µg/l | 101 | 80.8 | 121 | Roche Elecsys |
| | ng/ml = µg/l | 90.2 | 72.2 | 108 | Diasorin Liaison |
| | ng/ml = µg/l | 100 | 80.0 | 120 | Roche Modular E170 |
| | ng/ml = µg/l | 69.1 | 55.3 | 82.9 | Beckman Access |
| | ng/ml = µg/l | 64.3 | 51.4 | 77.2 | Tosoh Series |
| | ng/ml = µg/l | 61.8 | 49.4 | 74.2 | Vitros ECi |
| | ng/ml = µg/l | 80.2 | 64.2 | 96.2 | Immunotech IRMA |
| | ng/ml = µg/l | 104 | 83.2 | 125 | Roche Cobas E411 |
| | ng/ml = µg/l | 79.4 | 63.5 | 95.3 | Beckman AU400/600/640/2700/5400 |
| | ng/ml = µg/l | 56.6 | 45.3 | 67.9 | Fujirebio Lumipulse G Series |
| | ng/ml = µg/l | 84.9 | 63.7 | 106 | Siemens Centaur CP |
| | ng/ml = µg/l | 97.1 | 77.7 | 117 | Diasorin Liaison XL |
| Folate | nmol/l | 7.15 | 5.43 | 8.87 | Abbott Architect |
| | ng/ml | 3.15 | 2.39 | 3.91 | |
| | nmol/l | 11.9 | 7.74 | 16.1 | Siemens Centaur XP/XPT/Classic (enhanced kit) |
| | ng/ml | 5.25 | 3.41 | 7.09 | |
| | nmol/l | 6.30 | 4.79 | 7.81 | Siemens Immulite 2000 |
| | ng/ml | 2.78 | 2.11 | 3.45 | |
| | nmol/l | 9.75 | 7.41 | 12.1 | Beckman DxI800 |
| | ng/ml | 4.30 | 3.27 | 5.33 | |
| | nmol/l | 9.37 | 7.12 | 11.6 | Beckman Access |
| | ng/ml | 4.13 | 3.14 | 5.12 | |
| | nmol/l | 15.3 | 11.6 | 19.0 | Tosoh Series |
| | ng/ml | 6.75 | 5.12 | 8.38 | |
| | nmol/l | 6.26 | 4.76 | 7.76 | Vitros ECi |
| | ng/ml | 2.76 | 2.10 | 3.42 | |
| | nmol/l | 7.83 | 5.95 | 9.71 | MP Biomedicals RIA |
| | ng/ml | 3.45 | 2.62 | 4.28 | |
| | nmol/l | 6.26 | 4.76 | 7.76 | Siemens Dimension |
| | ng/ml | 2.76 | 2.10 | 3.42 | |
| Free T3 | pmol/l | 11.8 | 8.85 | 14.8 | Abbott Architect |
| | ng/dl | 0.767 | 0.575 | 0.959 | |
| | pg/ml | 7.68 | 5.76 | 9.60 | |

RANDOX

## IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Free T3 | pmol/l | 12.7 | 9.53 | 15.9 | BioMerieux Vidas |
| | ng/dl | 0.826 | 0.619 | 1.03 | |
| | pg/ml | 8.27 | 6.20 | 10.3 | |
| | pmol/l | 12.9 | 7.74 | 18.1 | Siemens Centaur XP/XPT/Classic |
| | ng/dl | 0.839 | 0.503 | 1.18 | |
| | pg/ml | 8.40 | 5.04 | 11.8 | |
| | pmol/l | 10.0 | 7.50 | 12.5 | Siemens Immulite 2000/2500 |
| | ng/dl | 0.650 | 0.488 | 0.812 | |
| | pg/ml | 6.51 | 4.88 | 8.14 | |
| | pmol/l | 9.52 | 7.14 | 11.9 | Siemens Immulite 1000 |
| | ng/dl | 0.619 | 0.464 | 0.774 | |
| | pg/ml | 6.20 | 4.65 | 7.75 | |
| | pmol/l | 9.47 | 7.10 | 11.8 | Beckman DxI800 |
| | ng/dl | 0.616 | 0.462 | 0.770 | |
| | pg/ml | 6.16 | 4.62 | 7.70 | |
| | pmol/l | 15.3 | 11.5 | 19.1 | Roche Elecsys |
| | ng/dl | 0.995 | 0.748 | 1.24 | |
| | pg/ml | 9.96 | 7.49 | 12.4 | |
| | pmol/l | 16.6 | 12.5 | 20.8 | Diasorin Liaison |
| | ng/dl | 1.08 | 0.813 | 1.35 | |
| | pg/ml | 10.8 | 8.14 | 13.5 | |
| | pmol/l | 10.8 | 8.10 | 13.5 | Beckman Access |
| | ng/dl | 0.702 | 0.527 | 0.877 | |
| | pg/ml | 7.03 | 5.27 | 8.79 | |
| | pmol/l | 16.2 | 12.2 | 20.3 | Tosoh Series |
| | ng/dl | 1.05 | 0.793 | 1.31 | |
| | pg/ml | 10.5 | 7.94 | 13.1 | |
| | pmol/l | 29.2 | 21.9 | 36.5 | Vitros ECi |
| | ng/dl | 1.90 | 1.42 | 2.38 | |
| | pg/ml | 19.0 | 14.3 | 23.7 | |
| | pmol/l | 15.2 | 11.4 | 19.0 | Roche Cobas E411 |
| | ng/dl | 0.988 | 0.741 | 1.24 | |
| | pg/ml | 9.90 | 7.42 | 12.4 | |
| | pmol/l | 15.6 | 11.7 | 19.5 | Roche Cobas 6000/8000 |
| | ng/dl | 1.01 | 0.761 | 1.26 | |
| | pg/ml | 10.2 | 7.62 | 12.8 | |
| | pmol/l | 12.5 | 7.50 | 17.5 | Siemens Centaur CP |
| | ng/dl | 0.813 | 0.488 | 1.14 | |
| | pg/ml | 8.14 | 4.88 | 11.4 | |
| | pmol/l | 12.8 | 9.60 | 16.0 | Mindray CL-2000i |
| | ng/dl | 0.832 | 0.624 | 1.04 | |
| | pg/ml | 8.33 | 6.25 | 10.4 | |
| | pmol/l | 16.9 | 12.7 | 21.1 | Diasorin Liaison XL |
| | ng/dl | 1.10 | 0.826 | 1.37 | |
| | pg/ml | 11.0 | 8.27 | 13.7 | |
| Free T4 | pmol/l | 20.4 | 15.3 | 25.5 | Abbott Architect |
| | ng/dl | 1.59 | 1.19 | 1.99 | |
| | pg/ml | 15.9 | 11.9 | 19.9 | |

RANDOX

## IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Free T4 | pmol/l | 21.2 | 15.9 | 26.5 | Siemens Centaur XP/XPT/Classic |
| | ng/dl | 1.65 | 1.24 | 2.06 | |
| | pg/ml | 16.5 | 12.4 | 20.6 | |
| | pmol/l | 29.6 | 22.2 | 37.0 | CIS RIA Coated tube |
| | ng/dl | 2.31 | 1.73 | 2.89 | |
| | pg/ml | 23.1 | 17.3 | 28.9 | |
| | pmol/l | 29.0 | 21.8 | 36.3 | Siemens Immulite 2000/2500 |
| | ng/dl | 2.26 | 1.70 | 2.82 | |
| | pg/ml | 22.6 | 17.0 | 28.2 | |
| | pmol/l | 29.8 | 22.4 | 37.3 | Siemens Immulite 1000 |
| | ng/dl | 2.32 | 1.75 | 2.89 | |
| | pg/ml | 23.2 | 17.5 | 28.9 | |
| | pmol/l | 21.8 | 16.4 | 27.3 | Beckman DxI800 |
| | ng/dl | 1.70 | 1.28 | 2.12 | |
| | pg/ml | 17.0 | 12.8 | 21.2 | |
| | pmol/l | 27.4 | 20.6 | 34.3 | Roche Elecsys |
| | ng/dl | 2.14 | 1.61 | 2.67 | |
| | pg/ml | 21.4 | 16.1 | 26.7 | |
| | pmol/l | 31.8 | 23.9 | 39.8 | Diasorin Liaison |
| | ng/dl | 2.48 | 1.86 | 3.10 | |
| | pg/ml | 24.8 | 18.6 | 31.0 | |
| | pmol/l | 22.5 | 16.9 | 28.1 | Beckman Access |
| | ng/dl | 1.76 | 1.32 | 2.20 | |
| | pg/ml | 17.6 | 13.2 | 22.0 | |
| | pmol/l | 27.7 | 20.8 | 34.6 | Tosoh Series |
| | ng/dl | 2.16 | 1.62 | 2.70 | |
| | pg/ml | 21.6 | 16.2 | 27.0 | |
| | pmol/l | 56.6 | 42.5 | 70.8 | Vitros ECi |
| | ng/dl | 4.41 | 3.32 | 5.50 | |
| | pg/ml | 44.1 | 33.2 | 55.0 | |
| | pmol/l | 27.2 | 20.4 | 34.0 | Roche Cobas 6000/8000 |
| | ng/dl | 2.12 | 1.59 | 2.65 | |
| | pg/ml | 21.2 | 15.9 | 26.5 | |
| | pmol/l | 22.5 | 16.9 | 28.1 | Immunotech IRMA |
| | ng/dl | 1.76 | 1.32 | 2.20 | |
| | pg/ml | 17.6 | 13.2 | 22.0 | |
| | pmol/l | 27.4 | 20.6 | 34.3 | Roche Cobas E411 |
| | ng/dl | 2.14 | 1.61 | 2.67 | |
| | pg/ml | 21.4 | 16.1 | 26.7 | |
| | pmol/l | 29.3 | 22.0 | 36.6 | Biomerieux Vidas FT4N Kit |
| | ng/dl | 2.29 | 1.72 | 2.86 | |
| | pg/ml | 22.9 | 17.2 | 28.6 | |
| | pmol/l | 21.8 | 16.4 | 27.3 | Siemens Centaur CP |
| | ng/dl | 1.70 | 1.28 | 2.12 | |
| | pg/ml | 17.0 | 12.8 | 21.2 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Free T4 | pmol/l | 21.9 | 16.4 | 27.4 | Mindray CL-2000i |
| | ng/dl | 1.71 | 1.28 | 2.14 | |
| | pg/ml | 17.1 | 12.8 | 21.4 | |
| | pmol/l | 33.5 | 25.1 | 41.9 | Diasorin Liaison XL |
| | ng/dl | 2.61 | 1.96 | 3.26 | |
| | pg/ml | 26.1 | 19.6 | 32.6 | |
| FSH | mU/ml | 27.1 | 21.7 | 32.5 | Abbott Architect |
| | mU/ml | 34.1 | 27.3 | 40.9 | BioMerieux Vidas |
| | mU/ml | 37.5 | 28.1 | 46.9 | Siemens Centaur XP/XPT/Classic |
| | mU/ml | 30.1 | 24.1 | 36.1 | Siemens Immulite 2000/2500 |
| | mU/ml | 30.1 | 24.1 | 36.1 | Siemens Immulite 1000 |
| | mU/ml | 31.8 | 25.4 | 38.2 | Beckman DxI800 |
| | mU/ml | 29.5 | 23.6 | 35.4 | Roche/BM Elecsys |
| | mU/ml | 35.3 | 28.2 | 42.4 | Diasorin Liaison |
| | mU/ml | 31.1 | 24.9 | 37.3 | Beckman Access |
| | mU/ml | 29.9 | 23.9 | 35.9 | Tosoh Series |
| | mU/ml | 23.7 | 19.0 | 28.4 | Vitros ECi |
| | mU/ml | 30.1 | 24.1 | 36.1 | Roche Cobas E411 |
| | mU/ml | 28.4 | 22.7 | 34.1 | Roche Cobas 6000/8000 |
| | mU/ml | 25.3 | 20.2 | 30.4 | Fujirebio Lumipulse G Series |
| | mU/ml | 31.8 | 23.9 | 39.7 | Siemens Centaur CP |
| | mU/ml | 43.3 | 34.6 | 52.0 | Diasorin Liaison XL |
| Gentamicin | µmol/l | 6.91 | 5.53 | 8.29 | Roche Cobas 6000/8000 |
| | µg/ml | 3.30 | 2.64 | 3.96 | |
| Growth Hormone (GH) | µU/ml | 18.6 | 14.9 | 22.3 | Siemens Immulite 2000/2500 |
| | ng/ml | 6.19 | 4.96 | 7.42 | |
| | µU/ml | 17.2 | 13.8 | 20.6 | Siemens Immulite 1000 |
| | ng/ml | 5.73 | 4.60 | 6.86 | |
| | µU/ml | 14.4 | 11.5 | 17.3 | Beckman DxI800 |
| | ng/ml | 4.80 | 3.83 | 5.77 | |
| | µU/ml | 15.3 | 12.2 | 18.4 | Beckman Access |
| | ng/ml | 5.09 | 4.06 | 6.12 | |
| | µU/ml | 17.7 | 14.2 | 21.2 | Tosoh Series |
| | ng/ml | 5.89 | 4.73 | 7.05 | |
| | µU/ml | 17.0 | 13.6 | 20.4 | Roche Cobas E411 |
| | ng/ml | 5.66 | 4.53 | 6.79 | |
| | µU/ml | 16.6 | 13.3 | 19.9 | Roche Cobas 6000/8000 |
| | ng/ml | 5.53 | 4.43 | 6.63 | |
| | µU/ml | 17.5 | 14.0 | 21.0 | IDS iSYS |
| | ng/ml | 5.83 | 4.66 | 7.00 | |
| | µU/ml | 15.9 | 12.7 | 19.1 | Diasorin Liaison XL |
| | ng/ml | 5.29 | 4.23 | 6.35 | |
| Immunoglobulin E | KIU/l = IU/ml | 96.2 | 77.0 | 115 | Abbott Architect |
| | KIU/l = IU/ml | 94.3 | 75.4 | 113 | BioMerieux Vidas |
| | KIU/l = IU/ml | 115 | 69.0 | 161 | Siemens Centaur XP/XPT/Classic |

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Immunoglobulin E | KIU/l = IU/ml | 114 | 91.2 | 137 | Siemens Immulite 2000/2500 |
| | KIU/l = IU/ml | 117 | 93.6 | 140 | Siemens Immulite 1000 |
| | KIU/l = IU/ml | 123 | 98.4 | 148 | Roche Elecsys |
| | KIU/l = IU/ml | 115 | 92.0 | 138 | Pharmacia Unicap |
| | KIU/l = IU/ml | 106 | 84.8 | 127 | Tosoh Series |
| | KIU/l = IU/ml | 127 | 102 | 152 | Roche Cobas E411 |
| | KIU/l = IU/ml | 125 | 100 | 150 | Roche Cobas 6000/8000 |
| | KIU/l = IU/ml | 101 | 80.8 | 121 | Fujirebio Lumipulse G Series |
| | KIU/l = IU/ml | 100 | 60.0 | 140 | Siemens Centaur CP |
| Insulin | mU/l | 19.7 | 14.8 | 24.6 | Siemens Centaur XP/XPT/Classic |
| | µU/ml | 19.7 | 14.8 | 24.6 | |
| | mU/l | 18.7 | 14.0 | 23.4 | Roche Elecsys |
| | µU/ml | 18.7 | 14.0 | 23.4 | |
| | mU/l | 16.0 | 12.0 | 20.0 | Beckman Access |
| | µU/ml | 16.0 | 12.0 | 20.0 | |
| | mU/l | 16.7 | 12.5 | 20.9 | Abbott Architect |
| | µU/ml | 16.7 | 12.5 | 20.9 | |
| | mU/l | 19.9 | 14.9 | 24.9 | Tosoh Series |
| | µU/ml | 19.9 | 14.9 | 24.9 | |
| | mU/l | 18.9 | 14.2 | 23.6 | Roche Cobas E411 |
| | µU/ml | 18.9 | 14.2 | 23.6 | |
| | mU/l | 15.2 | 11.4 | 19.0 | Beckman DxI 600/800 |
| | µU/ml | 15.2 | 11.4 | 19.0 | |
| | mU/l | 21.1 | 15.8 | 26.4 | Diasorin Liaison |
| | µU/ml | 21.1 | 15.8 | 26.4 | |
| | mU/l | 19.0 | 14.3 | 23.8 | Roche Cobas 6000/8000 |
| | µU/ml | 19.0 | 14.3 | 23.7 | |
| | mU/l | 18.5 | 13.9 | 23.1 | Fujirebio Lumipulse G Series |
| | µU/ml | 18.5 | 13.9 | 23.1 | |
| | mU/l | 19.3 | 14.5 | 24.1 | Siemens Centaur CP |
| | µU/ml | 19.3 | 14.5 | 24.1 | |
| | mU/l | 19.3 | 14.5 | 24.1 | Siemens Atellica IM |
| | µU/ml | 19.3 | 14.5 | 24.1 | |
| Luteinising Hormone (LH) | mU/ml | 26.3 | 21.0 | 31.6 | Abbott Architect |
| | mU/ml | 30.7 | 24.6 | 36.8 | BioMerieux Vidas |
| | mU/ml | 31.5 | 24.3 | 38.7 | Siemens Centaur XP/XPT/Classic |
| | mU/ml | 46.7 | 37.4 | 56.0 | Siemens Immulite 2000 |
| | mU/ml | 44.1 | 35.3 | 52.9 | Siemens Immulite 1000 |
| | mU/ml | 24.9 | 19.9 | 29.9 | Beckman DxI800 |
| | mU/ml | 34.6 | 27.7 | 41.5 | Roche Elecsys |
| | mU/ml | 38.2 | 30.6 | 45.8 | Diasorin Liaison |
| | mU/ml | 25.7 | 20.6 | 30.8 | Beckman Access |
| | mU/ml | 28.8 | 23.0 | 34.6 | Tosoh Series |
| | mU/ml | 44.8 | 35.8 | 53.8 | Vitros ECi |
| | mU/ml | 34.8 | 27.8 | 41.8 | Roche Cobas E411 |
| | mU/ml | 34.6 | 27.7 | 41.5 | Roche Cobas 6000/8000 |

RANDOX

## IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Luteinising Hormone (LH) | mU/ml | 30.3 | 24.2 | 36.4 | Fujirebio Lumipulse G Series |
| | mU/ml | 32.5 | 25.0 | 40.0 | Siemens Centaur CP |
| | mU/ml | 35.4 | 28.3 | 42.5 | Mindray CL-2000i |
| | mU/ml | 40.7 | 32.6 | 48.8 | Diasorin Liaison XL |
| Oestradiol | pmol/l | 917 | 734 | 1100 | Abbott Architect |
| | pg/ml | 249 | 200 | 298 | |
| | pmol/l | 1622 | 1298 | 1946 | BioMerieux Vidas |
| | pg/ml | 441 | 353 | 529 | |
| | pmol/l | 1353 | 812 | 1894 | Siemens Centaur XP/XPT/Classic |
| | pg/ml | 368 | 221 | 515 | |
| | pmol/l | 1424 | 1139 | 1709 | Siemens Immulite 2000/2500 |
| | pg/ml | 387 | 310 | 464 | |
| | pmol/l | 1430 | 1144 | 1716 | Siemens Immulite 1000 |
| | pg/ml | 389 | 311 | 467 | |
| | pmol/l | 1285 | 1028 | 1542 | Beckman DxI800 |
| | pg/ml | 350 | 280 | 420 | |
| | pmol/l | 999 | 799 | 1199 | Roche Elecsys (Estradiol II) |
| | pg/ml | 272 | 217 | 327 | |
| | pmol/l | 1336 | 1069 | 1603 | Beckman Access |
| | pg/ml | 363 | 291 | 435 | |
| | pmol/l | 1366 | 1093 | 1639 | Vitros ECi |
| | pg/ml | 372 | 297 | 447 | |
| | pmol/l | 1001 | 801 | 1201 | Roche Cobas 6000/8000 (Estradiol II) |
| | pg/ml | 272 | 218 | 326 | |
| | pmol/l | 1002 | 802 | 1202 | Roche Cobas 4000/E411 (Estradiol II) |
| | pg/ml | 273 | 218 | 328 | |
| | pmol/l | 1354 | 812 | 1896 | Siemens Centaur XP/XPT/Classic Enhanced (eE2) |
| | pg/ml | 368 | 221 | 515 | |
| | pmol/l | 1097 | 878 | 1316 | Tosoh (iE2-hsE2) |
| | pg/ml | 298 | 239 | 357 | |
| | pmol/l | 1455 | 873 | 2037 | Siemens Centaur CP |
| | pg/ml | 396 | 238 | 554 | |
| | pmol/l | 1366 | 820 | 1912 | Siemens Centaur CP Enhanced (eE2) |
| | pg/ml | 372 | 223 | 521 | |
| | pmol/l | 1218 | 974 | 1462 | Fujirebio Lumipulse G Series |
| | pg/ml | 331 | 265 | 397 | |
| | pmol/l | 1002 | 802 | 1202 | Roche Cobas 6000/8000 (Estradiol III) |
| | pg/ml | 273 | 218 | 328 | |
| | pmol/l | 1015 | 812 | 1218 | Roche Elecsys (Estradiol III) |
| | pg/ml | 276 | 221 | 331 | |
| | pmol/l | 1003 | 802 | 1204 | Roche Cobas 4000/E411 (Estradiol III) |
| | pg/ml | 273 | 218 | 328 | |
| | pmol/l | 1147 | 918 | 1376 | Beckman Access / Access 2 Sensitive B84493 |
| | pg/ml | 312 | 250 | 374 | |
| | pmol/l | 1079 | 863 | 1295 | Beckman DxI600/800 Sensitive B84493 |
| | pg/ml | 293 | 235 | 352 | |

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Paracetamol | mmol/l | 0.316 | 0.253 | 0.379 | Roche Integra |
| | mg/l | 47.8 | 38.3 | 57.3 | |
| | mmol/l | 0.327 | 0.262 | 0.392 | Abbott Architect |
| | mg/l | 49.5 | 39.6 | 59.4 | |
| | mmol/l | 0.330 | 0.264 | 0.396 | Roche Cobas 6000/8000 |
| | mg/l | 49.9 | 39.9 | 59.9 | |
| Phenobarbital | µmol/l | 80.2 | 64.2 | 96.2 | Abbott Architect |
| | µg/ml | 18.6 | 14.9 | 22.3 | |
| | µmol/l | 79.4 | 63.5 | 95.3 | Roche Cobas 6000/8000 |
| | µg/ml | 18.4 | 14.7 | 22.1 | |
| | µmol/l | 78.8 | 63.0 | 94.6 | Siemens Immulite 2000/2500 |
| | µg/ml | 18.3 | 14.6 | 22.0 | |
| | µmol/l | 76.9 | 61.5 | 92.3 | Beckman AU400/600/640/2700/5400 |
| | µg/ml | 17.8 | 14.3 | 21.3 | |
| | µmol/l | 103 | 74.2 | 132 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 23.9 | 17.2 | 30.6 | |
| | µmol/l | 77.1 | 61.7 | 92.5 | Roche Integra |
| | µg/ml | 17.9 | 14.3 | 21.5 | |
| | µmol/l | 77.5 | 62.0 | 93.0 | Siemens Immulite 1000 |
| | µg/ml | 18.0 | 14.4 | 21.6 | |
| | µmol/l | 80.4 | 64.3 | 96.5 | Beckman DxC |
| | µg/ml | 18.7 | 14.9 | 22.5 | |
| Phenytoin | µmol/l | 67.6 | 54.1 | 81.1 | Abbott Architect |
| | µg/ml | 17.1 | 13.7 | 20.5 | |
| | µmol/l | 77.4 | 60.4 | 94.4 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 19.5 | 15.2 | 23.8 | |
| | µmol/l | 74.4 | 59.5 | 89.3 | Siemens Dimension |
| | µg/ml | 18.8 | 15.0 | 22.6 | |
| | µmol/l | 63.9 | 51.1 | 76.7 | Siemens Immulite 2000/2500 |
| | µg/ml | 16.1 | 12.9 | 19.3 | |
| | µmol/l | 62.6 | 50.1 | 75.1 | Siemens Immulite 1000 |
| | µg/ml | 15.8 | 12.7 | 18.9 | |
| | µmol/l | 65.9 | 52.7 | 79.1 | Roche Integra |
| | µg/ml | 16.6 | 13.3 | 19.9 | |
| | µmol/l | 69.6 | 55.7 | 83.5 | Vitros |
| | µg/ml | 17.6 | 14.1 | 21.1 | |
| | µmol/l | 68.6 | 54.9 | 82.3 | Roche Cobas E411 |
| | µg/ml | 17.3 | 13.9 | 20.7 | |
| | µmol/l | 68.1 | 54.5 | 81.7 | Roche Cobas 6000/8000 |
| | µg/ml | 17.2 | 13.8 | 20.6 | |
| | µmol/l | 65.4 | 52.3 | 78.5 | Beckman DxC |
| | µg/ml | 16.5 | 13.2 | 19.8 | |
| Progesterone | nmol/l | 29.1 | 23.3 | 34.9 | Abbott Architect |
| | ng/ml | 9.11 | 7.29 | 10.9 | |
| | nmol/l | 47.1 | 37.7 | 56.5 | BioMerieux Vidas |
| | ng/ml | 14.7 | 11.8 | 17.6 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Progesterone | nmol/l | 25.7 | 18.0 | 33.4 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 8.04 | 5.63 | 10.5 | |
| | nmol/l | 26.1 | 20.9 | 31.3 | Siemens Immulite 2000/2500 |
| | ng/ml | 8.17 | 6.54 | 9.80 | |
| | nmol/l | 31.5 | 25.2 | 37.8 | Siemens Immulite 1000 |
| | ng/ml | 9.86 | 7.89 | 11.8 | |
| | nmol/l | 36.3 | 29.0 | 43.6 | Beckman DxI Prog Cal 33555 |
| | ng/ml | 11.4 | 9.08 | 13.7 | |
| | nmol/l | 37.7 | 30.2 | 45.2 | Roche Elecsys (Prog. II) |
| | ng/ml | 11.8 | 9.45 | 14.2 | |
| | nmol/l | 37.9 | 30.3 | 45.5 | Beckman Access Prog Cal 33555 |
| | ng/ml | 11.9 | 9.48 | 14.3 | |
| | nmol/l | 42.9 | 34.3 | 51.5 | Tosoh Series |
| | ng/ml | 13.4 | 10.7 | 16.1 | |
| | nmol/l | 37.8 | 30.2 | 45.4 | Vitros ECi |
| | ng/ml | 11.8 | 9.45 | 14.2 | |
| | nmol/l | 37.1 | 29.7 | 44.5 | Roche Cobas 4000/e411 (Prog. II) |
| | ng/ml | 11.6 | 9.30 | 13.9 | |
| | nmol/l | 38.3 | 30.6 | 46.0 | Roche Cobas 6000/8000 (Prog. II) |
| | ng/ml | 12.0 | 9.58 | 14.4 | |
| | nmol/l | 32.3 | 25.8 | 38.8 | Diasorin Liaison |
| | ng/ml | 10.1 | 8.08 | 12.1 | |
| | nmol/l | 31.7 | 25.4 | 38.0 | Beckman DxI Prog DE Cal A80773 |
| | ng/ml | 9.92 | 7.95 | 11.9 | |
| | nmol/l | 32.7 | 26.2 | 39.2 | Beckman Access Prog DE Cal A80773 |
| | ng/ml | 10.2 | 8.20 | 12.2 | |
| | nmol/l | 27.4 | 19.2 | 35.6 | Siemens Centaur CP |
| | ng/ml | 8.58 | 6.01 | 11.2 | |
| | nmol/l | 35.0 | 28.0 | 42.0 | Mindray CL-2000i |
| | ng/ml | 11.0 | 8.76 | 13.2 | |
| | nmol/l | 41.4 | 33.1 | 49.7 | Fujirebio Lumipulse G Series |
| | ng/ml | 13.0 | 10.4 | 15.6 | |
| | nmol/l | 37.8 | 30.2 | 45.4 | Roche Cobas 6000/8000 (Prog. III) |
| | ng/ml | 11.8 | 9.45 | 14.2 | |
| | nmol/l | 38.3 | 30.6 | 46.0 | Roche Elecsys (Prog. III) |
| | ng/ml | 12.0 | 9.58 | 14.4 | |
| | nmol/l | 37.1 | 29.7 | 44.5 | Roche Cobas 4000/e411 (Prog. III) |
| | ng/ml | 11.6 | 9.30 | 13.9 | |
| Prolactin | µU/ml | 552 | 442 | 662 | Abbott Architect |
| | µU/ml | 643 | 514 | 772 | BioMerieux Vidas |
| | µU/ml | 445 | 347 | 543 | Siemens Centaur XP/XPT/Classic |
| | µU/ml | 449 | 359 | 539 | Siemens Immulite 2000/2500 |
| | µU/ml | 490 | 392 | 588 | Siemens Immulite 1000 |
| | µU/ml | 441 | 353 | 529 | Beckman DxI800 |
| | µU/ml | 529 | 423 | 635 | Roche Elecsys |
| | µU/ml | 569 | 455 | 683 | Diasorin Liaison |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Prolactin | µU/ml | 446 | 357 | 535 | Beckman Access |
| | µU/ml | 521 | 417 | 625 | Tosoh Series |
| | µU/ml | 481 | 385 | 577 | Vitros ECi |
| | µU/ml | 529 | 423 | 635 | Roche Elecsys/E170/Cobas 6000/8000 PRLII |
| | µU/ml | 529 | 423 | 635 | Immunotech IRMA |
| | µU/ml | 547 | 438 | 656 | Roche Cobas E411 |
| | µU/ml | 525 | 420 | 630 | Roche Cobas 6000/8000 |
| | µU/ml | 633 | 506 | 760 | Fujirebio Lumipulse G Series |
| | µU/ml | 435 | 339 | 531 | Siemens Centaur CP |
| | µU/ml | 635 | 508 | 762 | Mindray CL-2000i |
| | µU/ml | 568 | 454 | 682 | Diasorin Liaison XL |
| PSA Free | ng/ml = µg/l | 11.9 | 8.93 | 14.9 | Abbott Architect |
| | ng/ml = µg/l | 8.65 | 6.49 | 10.8 | Siemens Centaur XP/XPT/Classic |
| | ng/ml = µg/l | 9.18 | 6.89 | 11.5 | Siemens Immulite 2000/2500 |
| | ng/ml = µg/l | 8.51 | 6.38 | 10.6 | Siemens Immulite 1000 |
| | ng/ml = µg/l | 10.5 | 7.88 | 13.1 | Beckman DXI standardised to Hybritech |
| | ng/ml = µg/l | 7.14 | 5.36 | 8.93 | Roche Elecsys |
| | ng/ml = µg/l | 5.74 | 4.31 | 7.18 | Diasorin Liaison |
| | ng/ml = µg/l | 11.1 | 8.33 | 13.9 | Beckman Access standardised to Hybritech |
| | ng/ml = µg/l | 6.03 | 4.52 | 7.54 | Tosoh Series |
| | ng/ml = µg/l | 7.19 | 5.39 | 8.99 | Roche Cobas E411 |
| | ng/ml = µg/l | 7.15 | 5.36 | 8.94 | Roche Cobas 6000/8000 |
| | ng/ml = µg/l | 8.95 | 6.71 | 11.2 | Beckman DxI800 standardised to WHO IRP96/670 |
| | ng/ml = µg/l | 11.0 | 8.25 | 13.8 | Beckman Access standardised to WHO IRP96/670 |
| | ng/ml = µg/l | 3.67 | 2.75 | 4.59 | Ortho Vitros 3600/5600/ECi PSA II |
| | ng/ml = µg/l | 7.68 | 5.76 | 9.60 | Fujirebio Lumipulse G Series |
| | ng/ml = µg/l | 5.64 | 4.23 | 7.05 | Diasorin Liaison XL |
| PSA Total | ng/ml = µg/l | 11.5 | 8.63 | 14.4 | Abbott Architect |
| | ng/ml = µg/l | 13.2 | 9.90 | 16.5 | BioMerieux Vidas |
| | ng/ml = µg/l | 12.4 | 9.30 | 15.5 | bioMerieux VIDAS TPSA |
| | ng/ml = µg/l | 12.1 | 9.08 | 15.1 | Siemens Centaur XP/XPT/Classic |
| | ng/ml = µg/l | 5.55 | 4.16 | 6.94 | Siemens Immulite 2000/2500 1st generation |
| | ng/ml = µg/l | 5.34 | 4.01 | 6.68 | Siemens Immulite 1000 3rd generation |
| | ng/ml = µg/l | 5.37 | 4.03 | 6.71 | Siemens Immulite 2000/2500 3rd generation |
| | ng/ml = µg/l | 5.80 | 4.35 | 7.25 | Siemens Immulite 1000 1st generation |
| | ng/ml = µg/l | 16.2 | 12.2 | 20.3 | Beckman DxI standardisd to Hybritech |
| | ng/ml = µg/l | 12.5 | 9.38 | 15.6 | Beckman DxI800 standardised to WHO IRP96/670 |
| | ng/ml = µg/l | 15.3 | 11.5 | 19.1 | Roche Elecsys |
| | ng/ml = µg/l | 7.49 | 5.62 | 9.36 | Diasorin Liaison |
| | ng/ml = µg/l | 16.5 | 12.4 | 20.6 | Beckman Access standardised to Hybritech |
| | ng/ml = µg/l | 16.4 | 12.3 | 20.5 | Beckman Access standardised to WHO IRP96/670 |
| | ng/ml = µg/l | 9.25 | 6.94 | 11.6 | Tosoh Series |
| | ng/ml = µg/l | 15.2 | 11.4 | 19.0 | Vitros ECi |
| | ng/ml = µg/l | 15.3 | 11.5 | 19.1 | CIS RIA Coated tube |
| | ng/ml = µg/l | 15.4 | 11.6 | 19.3 | Roche Cobas E411 |
| | ng/ml = µg/l | 15.2 | 11.4 | 19.0 | Roche Cobas 6000/8000 |

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| PSA Total | ng/ml = µg/l | 10.4 | 7.80 | 13.0 | Fujirebio Lumipulse G Series |
| | ng/ml = µg/l | 15.4 | 11.6 | 19.3 | Ortho Vitros 3600/5600/ECi PSA II |
| | ng/ml = µg/l | 12.1 | 9.08 | 15.1 | Siemens Centaur CP |
| | ng/ml = µg/l | 7.14 | 5.36 | 8.93 | Diasorin Liaison XL |
| Salicylic Acid | mmol/l | 1.19 | 0.952 | 1.43 | Abbott Architect |
| | mg/dl | 16.4 | 13.1 | 19.7 | |
| | mmol/l | 1.29 | 1.03 | 1.55 | Beckman DxC |
| | mg/dl | 17.8 | 14.2 | 21.4 | |
| SHBG | nmol/l | 47.8 | 38.2 | 57.4 | Siemens Immulite 2000/2500 |
| | nmol/l | 47.8 | 38.2 | 57.4 | Roche Elecsys |
| | nmol/l | 47.9 | 38.3 | 57.5 | Abbott Architect |
| | nmol/l | 50.3 | 40.2 | 60.4 | Roche Cobas E411 |
| | nmol/l | 49.1 | 39.3 | 58.9 | Roche Cobas 6000/8000 |
| | nmol/l | 46.6 | 37.3 | 55.9 | Beckman DxI800 |
| Testosterone | nmol/l | 13.1 | 10.5 | 15.7 | Abbott Architect |
| | ng/ml | 3.77 | 3.02 | 4.52 | |
| | ng/dl | 377 | 302 | 452 | |
| | nmol/l | 9.80 | 7.84 | 11.8 | BioMerieux Vidas |
| | ng/ml | 2.82 | 2.26 | 3.38 | |
| | ng/dl | 282 | 226 | 338 | |
| | nmol/l | 13.7 | 9.59 | 17.8 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 3.95 | 2.77 | 5.13 | |
| | ng/dl | 395 | 277 | 513 | |
| | nmol/l | 15.2 | 12.2 | 18.2 | Siemens Immulite 2000/2500 |
| | ng/ml | 4.38 | 3.51 | 5.25 | |
| | ng/dl | 438 | 351 | 525 | |
| | nmol/l | 11.5 | 9.20 | 13.8 | Beckman DxI800 |
| | ng/ml | 3.31 | 2.65 | 3.97 | |
| | ng/dl | 331 | 265 | 397 | |
| | nmol/l | 12.7 | 10.2 | 15.2 | Beckman Access |
| | ng/ml | 3.66 | 2.94 | 4.38 | |
| | ng/dl | 366 | 294 | 438 | |
| | nmol/l | 16.5 | 13.2 | 19.8 | Tosoh Series |
| | ng/ml | 4.75 | 3.80 | 5.70 | |
| | ng/dl | 475 | 380 | 570 | |
| | nmol/l | 16.7 | 13.4 | 20.0 | Vitros ECi |
| | ng/ml | 4.81 | 3.86 | 5.76 | |
| | ng/dl | 481 | 386 | 576 | |
| | nmol/l | 14.3 | 11.4 | 17.2 | Roche Cobas 6000 Test 2 |
| | ng/ml | 4.12 | 3.28 | 4.96 | |
| | ng/dl | 412 | 328 | 496 | |
| | nmol/l | 13.7 | 11.0 | 16.4 | Roche Elecsys Test II |
| | ng/ml | 3.95 | 3.17 | 4.73 | |
| | ng/dl | 395 | 317 | 473 | |
| | nmol/l | 14.0 | 11.2 | 16.8 | Roche Cobas 4000/e411 Test II |
| | ng/ml | 4.03 | 3.23 | 4.83 | |
| | ng/dl | 403 | 323 | 483 | |

RANDOX

## IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Testosterone | nmol/l | 12.9 | 10.3 | 15.5 | Abbott Architect 2nd Generation |
| | ng/ml | 3.72 | 2.97 | 4.47 | |
| | ng/dl | 372 | 297 | 447 | |
| | nmol/l | 12.5 | 8.75 | 16.3 | Siemens Centaur CP |
| | ng/ml | 3.60 | 2.52 | 4.68 | |
| | ng/dl | 360 | 252 | 468 | |
| | nmol/l | 9.38 | 7.50 | 11.3 | BioMerieux Vidas Testosterone II |
| | ng/ml | 2.70 | 2.16 | 3.24 | |
| | ng/dl | 270 | 216 | 324 | |
| | nmol/l | 18.1 | 14.5 | 21.7 | Mindray CL-2000i |
| | ng/ml | 5.21 | 4.18 | 6.24 | |
| | ng/dl | 521 | 418 | 624 | |
| | nmol/l | 13.8 | 9.66 | 17.9 | Siemens Centaur TST II |
| | ng/ml | 3.97 | 2.78 | 5.16 | |
| | ng/dl | 397 | 278 | 516 | |
| | nmol/l | 6.21 | 4.97 | 7.45 | Diasorin Liaison XL |
| | ng/ml | 1.79 | 1.43 | 2.15 | |
| | ng/dl | 179 | 143 | 215 | |
| Theophylline | µmol/l | 85.5 | 68.4 | 103 | Roche Integra |
| | µg/ml | 15.4 | 12.3 | 18.5 | |
| | µmol/l | 75.6 | 60.5 | 90.7 | Abbott Architect |
| | µg/ml | 13.6 | 10.9 | 16.3 | |
| | µmol/l | 78.9 | 63.1 | 94.7 | Roche Cobas 6000/8000 |
| | µg/ml | 14.2 | 11.4 | 17.0 | |
| | µmol/l | 79.6 | 63.7 | 95.5 | Beckman DxC |
| | µg/ml | 14.3 | 11.5 | 17.1 | |
| | µmol/l | 75.9 | 60.7 | 91.1 | Beckman AU400/600/640/2700/5400 |
| | µg/ml | 13.7 | 10.9 | 16.5 | |
| Thyroglobulin | ng/ml | 11.5 | 8.63 | 14.4 | Siemens Immulite 1000 |
| | ng/ml | 13.6 | 10.2 | 17.0 | Siemens Immulite 2000 |
| | ng/ml | 34.4 | 25.8 | 43.0 | Roche Elecsys |
| | ng/ml | 28.0 | 21.0 | 35.0 | Beckman DxI800 |
| | ng/ml | 36.0 | 27.0 | 45.0 | Roche Cobas E411 |
| | ng/ml | 36.4 | 27.3 | 45.5 | Roche Cobas 6000/8000 |
| | ng/ml | 29.4 | 22.1 | 36.8 | Beckman Access |
| | ng/ml | 38.2 | 28.7 | 47.8 | Abbott Architect 2000i |
| | ng/ml | 33.4 | 25.1 | 41.8 | Tosoh Series |
| | ng/ml | 35.3 | 26.5 | 44.1 | Roche Cobas 6000 TGII |
| | ng/ml | 35.5 | 26.6 | 44.4 | Roche Elecsys TGII |
| | ng/ml | 36.1 | 27.1 | 45.1 | Roche Cobas 4000/E411 TGII |
| | ng/ml | 11.2 | 8.40 | 14.0 | Diasorin Liaison XL |
| Thyroid Stimulating Hormone | µU/ml = mIU/l | 1.96 | 1.57 | 2.35 | Abbott Architect |
| | µU/ml = mIU/l | 2.32 | 1.86 | 2.78 | bioMerieux VIDAS TSH |
| | µU/ml = mIU/l | 2.19 | 1.75 | 2.63 | bioMerieux VIDAS TSH3 Ultrasensitive |
| | µU/ml = mIU/l | 2.35 | 1.60 | 3.10 | Siemens Centaur XP/XPT/Classic |

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Thyroid Stimulating Hormone | µU/ml = mIU/l | 2.74 | 2.19 | 3.29 | CIS IRMA |
| | µU/ml = mIU/l | 2.30 | 1.56 | 3.04 | Siemens Centaur XP/XPT/Classic 3rd Generation |
| | µU/ml = mIU/l | 2.32 | 1.86 | 2.78 | Siemens Immulite 2000/2500 |
| | µU/ml = mIU/l | 2.28 | 1.82 | 2.74 | Siemens Immulite 1000 |
| | µU/ml = mIU/l | 2.05 | 1.64 | 2.46 | Beckman DxI800 Fast TSH |
| | µU/ml = mIU/l | 2.09 | 1.67 | 2.51 | Beckman DxI800 |
| | µU/ml = mIU/l | 2.43 | 1.94 | 2.92 | Roche Elecsys |
| | µU/ml = mIU/l | 2.71 | 2.17 | 3.25 | Diasorin Liaison |
| | µU/ml = mIU/l | 2.09 | 1.67 | 2.51 | Beckman Access Fast TSH |
| | µU/ml = mIU/l | 2.15 | 1.72 | 2.58 | Beckman Access hyperTSH 3rd Generation |
| | µU/ml = mIU/l | 2.30 | 1.84 | 2.76 | Tosoh Series |
| | µU/ml = mIU/l | 2.58 | 2.06 | 3.10 | Vitros ECi |
| | µU/ml = mIU/l | 2.45 | 1.96 | 2.94 | Roche Cobas E411 |
| | µU/ml = mIU/l | 2.45 | 1.96 | 2.94 | Roche Cobas 6000/8000 |
| | µU/ml = mIU/l | 2.10 | 1.68 | 2.52 | Beckman DxI800 Hyper TSH |
| | µU/ml = mIU/l | 2.07 | 1.66 | 2.48 | Siemens Dimension Vista LOCI |
| | µU/ml = mIU/l | 2.27 | 1.54 | 3.00 | Siemens Centaur XP/XPT/Classic TSH3-Ultra |
| | µU/ml = mIU/l | 2.22 | 1.51 | 2.93 | Siemens Centaur CP |
| | µU/ml = mIU/l | 2.15 | 1.46 | 2.84 | Siemens Centaur CP TSH3-Ultra |
| | µU/ml = mIU/l | 2.81 | 2.25 | 3.37 | Mindray CL-2000i |
| | µU/ml = mIU/l | 2.09 | 1.67 | 2.51 | Beckman DxI 600/800 Access (3rd IS) |
| | µU/ml = mIU/l | 3.03 | 2.42 | 3.64 | Diasorin Liaison XL |
| Total Beta hCG | mU/ml=IU/l | 13.2 | 10.6 | 15.8 | Abbott Architect |
| | IU/ml | 0.013 | 0.011 | 0.015 | |
| | mU/ml=IU/l | 28.4 | 22.7 | 34.1 | BioMerieux Vidas |
| | IU/ml | 0.028 | 0.023 | 0.033 | |
| | mU/ml=IU/l | 14.7 | 8.82 | 20.6 | Siemens Centaur XP/XPT/Classic |
| | IU/ml | 0.015 | 0.009 | 0.021 | |
| | mU/ml=IU/l | 35.7 | 28.6 | 42.8 | Siemens Dimension |
| | IU/ml | 0.036 | 0.029 | 0.043 | |
| | mU/ml=IU/l | 49.0 | 39.2 | 58.8 | Siemens Immulite 2000 |
| | IU/ml | 0.049 | 0.039 | 0.059 | |
| | mU/ml=IU/l | 44.0 | 35.2 | 52.8 | Siemens Immulite 1000 |
| | IU/ml | 0.044 | 0.035 | 0.053 | |
| | mU/ml=IU/l | 15.1 | 12.1 | 18.1 | Beckman DxI800 |
| | IU/ml | 0.015 | 0.012 | 0.018 | |
| | mU/ml=IU/l | 12.4 | 9.92 | 14.9 | Diasorin Liaison |
| | IU/ml | 0.012 | 0.010 | 0.014 | |
| | mU/ml=IU/l | 19.3 | 15.4 | 23.2 | Roche Cobas Core EIA |
| | IU/ml | 0.019 | 0.015 | 0.023 | |
| | mU/ml=IU/l | 14.7 | 11.8 | 17.6 | Beckman Access |
| | IU/ml | 0.015 | 0.012 | 0.018 | |
| | mU/ml=IU/l | 31.4 | 25.1 | 37.7 | Tosoh Series |
| | IU/ml | 0.031 | 0.025 | 0.037 | |
| | mU/ml=IU/l | 34.0 | 27.2 | 40.8 | Vitros ECi |
| | IU/ml | 0.034 | 0.027 | 0.041 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Total Beta hCG | mU/ml=IU/l | 15.5 | 12.4 | 18.6 | Roche STAT (Intact) |
| | IU/ml | 0.016 | 0.012 | 0.020 | |
| | mU/ml=IU/l | 19.1 | 15.3 | 22.9 | Roche hCG+Beta |
| | IU/ml | 0.019 | 0.015 | 0.023 | |
| | mU/ml=IU/l | 12.1 | 9.68 | 14.5 | Fujirebio Lumipulse G Series |
| | IU/ml | 0.012 | 0.010 | 0.014 | |
| | mU/ml=IU/l | 13.5 | 10.8 | 16.2 | Radiometer AQT90 Flex |
| | IU/ml | 0.014 | 0.011 | 0.017 | |
| | mU/ml=IU/l | 15.0 | 12.0 | 18.0 | Beckman Access Total BhCG (5th IS) |
| | IU/ml | 0.015 | 0.012 | 0.018 | |
| | mU/ml=IU/l | 15.1 | 12.1 | 18.1 | Beckman DxI Total BhCG (5th IS) |
| | IU/ml | 0.015 | 0.012 | 0.018 | |
| | mU/ml=IU/l | 15.0 | 9.00 | 21.0 | Siemens Centaur CP |
| | IU/ml | 0.015 | 0.009 | 0.021 | |
| | mU/ml=IU/l | 13.1 | 10.5 | 15.7 | Diasorin Liaison XL |
| | IU/ml | 0.013 | 0.011 | 0.015 | |
| Total T3 | nmol/l | 3.43 | 2.57 | 4.29 | Abbott Architect |
| | ng/ml | 2.23 | 1.67 | 2.79 | |
| | ng/dl | 223 | 167 | 279 | |
| | nmol/l | 4.07 | 3.05 | 5.09 | BioMerieux Vidas |
| | ng/ml | 2.65 | 1.99 | 3.31 | |
| | ng/dl | 265 | 199 | 331 | |
| | nmol/l | 4.39 | 3.29 | 5.49 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 2.86 | 2.14 | 3.58 | |
| | ng/dl | 286 | 214 | 358 | |
| | nmol/l | 3.87 | 2.90 | 4.84 | Siemens Immulite 2000/2500 |
| | ng/ml | 2.52 | 1.89 | 3.15 | |
| | ng/dl | 252 | 189 | 315 | |
| | nmol/l | 3.75 | 2.81 | 4.69 | Siemens Immulite 1000 |
| | ng/ml | 2.44 | 1.83 | 3.05 | |
| | ng/dl | 244 | 183 | 305 | |
| | nmol/l | 3.62 | 2.72 | 4.53 | Beckman DxI800 |
| | ng/ml | 2.36 | 1.77 | 2.95 | |
| | ng/dl | 236 | 177 | 295 | |
| | nmol/l | 4.49 | 3.37 | 5.61 | Roche Elecsys |
| | ng/ml | 2.92 | 2.19 | 3.65 | |
| | ng/dl | 292 | 219 | 365 | |
| | nmol/l | 3.69 | 2.77 | 4.61 | Beckman Access |
| | ng/ml | 2.40 | 1.80 | 3.00 | |
| | ng/dl | 240 | 180 | 300 | |
| | nmol/l | 3.91 | 2.93 | 4.89 | Tosoh Series |
| | ng/ml | 2.55 | 1.91 | 3.19 | |
| | ng/dl | 255 | 191 | 319 | |
| | nmol/l | 4.31 | 3.23 | 5.39 | Vitros ECi |
| | ng/ml | 2.81 | 2.10 | 3.52 | |
| | ng/dl | 281 | 210 | 352 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Total T3 | nmol/l | 2.77 | 2.08 | 3.46 | CIS RIA Coated tube |
| | ng/ml | 1.80 | 1.35 | 2.25 | |
| | ng/dl | 180 | 135 | 225 | |
| | nmol/l | 4.34 | 3.26 | 5.43 | Roche Cobas E411 |
| | ng/ml | 2.83 | 2.12 | 3.54 | |
| | ng/dl | 283 | 212 | 354 | |
| | nmol/l | 4.19 | 3.14 | 5.24 | Roche Cobas 6000/8000 |
| | ng/ml | 2.73 | 2.04 | 3.42 | |
| | ng/dl | 273 | 204 | 342 | |
| | nmol/l | 4.33 | 3.25 | 5.41 | Siemens Centaur CP |
| | ng/ml | 2.82 | 2.12 | 3.52 | |
| | ng/dl | 282 | 212 | 352 | |
| | nmol/l | 2.99 | 2.24 | 3.74 | Diasorin Liaison XL |
| | ng/ml | 1.95 | 1.46 | 2.44 | |
| | ng/dl | 195 | 146 | 244 | |
| Total T4 | nmol/l | 102 | 76.5 | 128 | Abbott Architect |
| | µg/dl | 7.96 | 5.97 | 9.95 | |
| | ng/ml | 79.6 | 59.7 | 100 | |
| | nmol/l | 123 | 92.3 | 154 | BioMerieux Vidas |
| | µg/dl | 9.59 | 7.20 | 12.0 | |
| | ng/ml | 95.9 | 72.0 | 120 | |
| | nmol/l | 105 | 68.3 | 142 | Siemens Centaur XP/XPT/Classic |
| | µg/dl | 8.19 | 5.32 | 11.1 | |
| | ng/ml | 81.9 | 53.2 | 111 | |
| | nmol/l | 111 | 83.3 | 139 | Siemens Immulite 2000/2500 |
| | µg/dl | 8.66 | 6.50 | 10.8 | |
| | ng/ml | 86.6 | 65.0 | 108 | |
| | nmol/l | 106 | 79.5 | 133 | Siemens Immulite 1000 |
| | µg/dl | 8.27 | 6.20 | 10.3 | |
| | ng/ml | 82.7 | 62.0 | 103 | |
| | nmol/l | 107 | 80.3 | 134 | Beckman DxI800 |
| | µg/dl | 8.35 | 6.26 | 10.4 | |
| | ng/ml | 83.5 | 62.6 | 104 | |
| | nmol/l | 101 | 75.8 | 126 | Roche Elecsys |
| | µg/dl | 7.88 | 5.91 | 9.85 | |
| | ng/ml | 78.8 | 59.1 | 98.5 | |
| | nmol/l | 113 | 84.8 | 141 | Beckman Access |
| | µg/dl | 8.81 | 6.61 | 11.0 | |
| | ng/ml | 88.1 | 66.1 | 110 | |
| | nmol/l | 98.3 | 73.7 | 123 | Tosoh Series |
| | µg/dl | 7.67 | 5.75 | 9.59 | |
| | ng/ml | 76.7 | 57.5 | 95.9 | |
| | nmol/l | 108 | 81.0 | 135 | Vitros ECi |
| | µg/dl | 8.42 | 6.32 | 10.5 | |
| | ng/ml | 84.2 | 63.2 | 105 | |
| | nmol/l | 110 | 82.5 | 138 | CIS RIA Coated tube |
| | µg/dl | 8.58 | 6.44 | 10.7 | |
| | ng/ml | 85.8 | 64.4 | 107 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Total T4 | nmol/l | 106 | 79.5 | 133 | Roche Cobas E411 |
| | µg/dl | 8.27 | 6.20 | 10.3 | |
| | ng/ml | 82.7 | 62.0 | 103 | |
| | nmol/l | 106 | 79.5 | 133 | Roche Cobas 6000/8000 |
| | µg/dl | 8.27 | 6.20 | 10.3 | |
| | ng/ml | 82.7 | 62.0 | 103 | |
| | nmol/l | 88.0 | 66.0 | 110 | Immunotech IRMA |
| | µg/dl | 6.86 | 5.15 | 8.57 | |
| | ng/ml | 68.6 | 51.5 | 85.7 | |
| | nmol/l | 111 | 72.2 | 150 | Siemens Centaur CP |
| | µg/dl | 8.66 | 5.63 | 11.7 | |
| | ng/ml | 86.6 | 56.3 | 117 | |
| | nmol/l | 79.6 | 59.7 | 100 | Diasorin Liaison XL |
| | µg/dl | 6.21 | 4.66 | 7.76 | |
| | ng/ml | 62.1 | 46.6 | 77.6 | |
| Valproic Acid | µmol/l | 523 | 418 | 628 | Abbott Architect |
| | µg/ml | 75.5 | 60.3 | 90.7 | |
| | µmol/l | 561 | 449 | 673 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 81.0 | 64.8 | 97.2 | |
| | µmol/l | 526 | 421 | 631 | Siemens Dimension |
| | µg/ml | 75.9 | 60.8 | 91.0 | |
| | µmol/l | 550 | 440 | 660 | Siemens Immulite 2000/2500 |
| | µg/ml | 79.4 | 63.5 | 95.3 | |
| | µmol/l | 555 | 444 | 666 | Siemens Immulite 1000 |
| | µg/ml | 80.1 | 64.1 | 96.1 | |
| | µmol/l | 536 | 429 | 643 | Roche Integra |
| | µg/ml | 77.3 | 61.9 | 92.7 | |
| | µmol/l | 602 | 482 | 722 | Vitros |
| | µg/ml | 86.9 | 69.6 | 104 | |
| | µmol/l | 557 | 446 | 668 | Roche Cobas E411 |
| | µg/ml | 80.4 | 64.4 | 96.4 | |
| | µmol/l | 554 | 443 | 665 | Roche Cobas 6000/8000 |
| | µg/ml | 79.9 | 63.9 | 95.9 | |
| | µmol/l | 526 | 421 | 631 | Beckman DxC |
| | µg/ml | 75.9 | 60.8 | 91.0 | |
| | µmol/l | 564 | 451 | 677 | Beckman AU400/600/640/2700/5400 |
| | µg/ml | 81.4 | 65.1 | 97.7 | |
| Vancomycin | µmol/l | 7.52 | 6.02 | 9.02 | Roche Integra |
| | µg/ml | 11.2 | 8.94 | 13.5 | |
| | µmol/l | 6.14 | 4.91 | 7.37 | Ortho Vitros Microslide Systems |
| | µg/ml | 9.12 | 7.29 | 11.0 | |
| | µmol/l | 7.39 | 5.91 | 8.87 | Abbott Architect |
| | µg/ml | 11.0 | 8.78 | 13.2 | |
| | µmol/l | 5.69 | 4.44 | 6.94 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 8.45 | 6.59 | 10.3 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

**Cat. No. IA3110 / IA3112 Lot. No. 1939EC Size 12 x 5 ml / 4 x 5 ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Vancomycin | µmol/l | 6.77 | 5.42 | 8.12 | Siemens Dimension |
| | µg/ml | 10.1 | 8.05 | 12.2 | |
| | µmol/l | 6.55 | 5.24 | 7.86 | Roche Cobas 6000/8000 |
| | µg/ml | 9.73 | 7.79 | 11.7 | |
| | µmol/l | 6.29 | 5.03 | 7.55 | Beckman DxC |
| | µg/ml | 9.35 | 7.47 | 11.2 | |
| | µmol/l | 6.17 | 4.94 | 7.40 | Thermo Scientific QMS Vancomycin |
| | µg/ml | 9.17 | 7.34 | 11.0 | |
| Vitamin B12 | pmol/l | 419 | 335 | 503 | Abbott Architect |
| | pg/ml | 568 | 454 | 682 | |
| | pmol/l | 469 | 352 | 586 | Siemens Centaur XP/XPT/Classic |
| | pg/ml | 635 | 476 | 794 | |
| | pmol/l | 417 | 334 | 500 | Siemens Immulite 2000 |
| | pg/ml | 565 | 453 | 677 | |
| | pmol/l | 356 | 285 | 427 | Beckman DxI800 |
| | pg/ml | 482 | 386 | 578 | |
| | pmol/l | 439 | 351 | 527 | Roche Elecsys |
| | pg/ml | 595 | 476 | 714 | |
| | pmol/l | 373 | 298 | 448 | Beckman Access |
| | pg/ml | 505 | 404 | 606 | |
| | pmol/l | 561 | 449 | 673 | Tosoh Series |
| | pg/ml | 760 | 608 | 912 | |
| | pmol/l | 437 | 350 | 524 | Vitros ECi |
| | pg/ml | 592 | 474 | 710 | |
| | pmol/l | 507 | 406 | 608 | MP Biomedicals RIA |
| | pg/ml | 687 | 550 | 824 | |
| | pmol/l | 424 | 339 | 509 | Siemens Dimension |
| | pg/ml | 575 | 459 | 691 | |
| | pmol/l | 540 | 405 | 675 | Siemens Centaur CP |
| | pg/ml | 732 | 549 | 915 | |

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

# IMMUNOASSAY PREMIUM PLUS - LEVEL 3 (IA PREMIUM PLUS 3)

| | | | | | |
|---|---|---|---|---|---|
| **CAT. NO.** | IA3111 | **GTIN:** | 05055273207279 | **SIZE:** | 12 x 5 ml |
| **CAT. NO.** | IA3112 | **GTIN:** | 05055273207286 | **SIZE:** | 4 x 5 ml |
| **LOT NO.** | 1942EC | **EXPIRY:** | 2022-12-28 | | |

## INTENDED USE
This product is intended for *in vitro* diagnostic use, as assayed quality control material to monitor the accuracy and reproducibility of analytes listed in the package insert.

**This device is for prescription use only.**

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

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

The Abbott Architect CA19-9 assay utilises an antibody/antigen system based on the 1116-NA-19-9 antibody. There are reports that the formulation employed with this system may return elevated concentrations, when compared to other methods for samples expressing high levels of 1116-NA-19-9 reactive determinants.

Health and Safety Data Sheets are available on request.

## STORAGE AND STABILITY
OPENED: Store refrigerated (+2°C to +8°C). Reconstituted serum is stable for 7 days at +2°C to +8°C, if kept capped in original container and free from contamination, or 4 weeks frozen once at –20°C. C-Peptide is stable for 1 day at +2°C to +8°C. Thyroglobulin should be tested within 4 hours of reconstitution when stored at +2°C to +8°C, or within 2 weeks when stored at –20°C. ACTH should be tested immediately after the 30-minute reconstitution period. No frozen stability claim is made for ACTH, Aldosterone and C-Peptide. CA19-9 is stable for 3 weeks when frozen once at –20°C. Only the required amount of product should be removed. After use, any residual product should NOT BE RETURNED to the original vial.

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

Bacterial contamination of the reconstituted serum will cause reductions in the stability of many components. If bacterial contamination is suspected, the vial should be discarded and a fresh vial reconstituted.

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

## MATERIALS PROVIDED
Immunoassay Premium Plus - Level 3: 12 x 5 ml Tri-Level: 4 x 5 ml

## MATERIAL REQUIRED BUT NOT PROVIDED
Volumetric pipette

## VALUE ASSIGNMENT
Each batch of Immunoassay Premium Plus is submitted to a number of external laboratories. Values are assigned from a consensus of results obtained by these laboratories, using a unique statistical analysis. Average values should normally fall within the listed ranges for analytes in the instruments specified in this product insert. However, variations may be caused by instrument reagents and laboratory technique. Therefore, the range produced herein should only be considered as a reference and it is recommended that each laboratory establish its own mean and acceptable ranges. Aldosterone is present in control levels 2 and level 3 only. Parathyroid Hormone (PTH) is present in the control, but no claim is made for the expected value or stability of this analyte.

If a method is unavailable, contact Randox Laboratories - Technical Services, Northern Ireland, tel: +44 (0) 28 9445 1070 or email Technical.Services@randox.com.

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

Rev. 30 July '21 me

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| 17-OH-Progesterone | nmol/l | 44.8 | 33.6 | 56.0 | DRG ELISA |
| | ng/ml | 14.8 | 11.1 | 18.5 | |
| | nmol/l | 34.0 | 25.5 | 42.5 | DIAsource RIA |
| | ng/ml | 11.3 | 8.44 | 14.2 | |
| 25-OH Vitamin D | nmol/l | 114 | 85.5 | 143 | Diasorin Liaison |
| | nmol/l | 139 | 104 | 174 | Siemens Centaur XP/XPT/Classic |
| | nmol/l | 87.4 | 65.6 | 109 | Roche Vitamin D Total |
| | nmol/l | 98.2 | 73.7 | 123 | Abbott Architect |
| | nmol/l | 113 | 84.8 | 141 | Vitros ECi |
| | nmol/l | 86.8 | 65.1 | 109 | Tosoh Series |
| | nmol/l | 84.6 | 63.5 | 106 | BioMerieux Vidas |
| | nmol/l | 93.1 | 69.8 | 116 | Beckman DxI 600/800 |
| | nmol/l | 102 | 76.5 | 128 | Fujirebio Lumipulse G Series |
| | nmol/l | 97.2 | 72.9 | 122 | Beckman Access 25 OH Vitamin D Total |
| | nmol/l | 97.4 | 73.1 | 122 | Abbott Architect (5P02)/ Alinity (8P45) |
| | nmol/l | 108 | 81.0 | 135 | Diasorin Liaison XL |
| | nmol/l | 108 | 81.0 | 135 | Roche Vitamin D Total II |
| | nmol/l | 134 | 101 | 168 | Siemens Atellica IM |
| ACTH | pmol/l | 44.8 | 33.6 | 56.0 | Siemens Immulite 2000/2500 |
| | pg/ml | 204 | 153 | 255 | |
| | pmol/l | 27.1 | 20.3 | 33.9 | Roche Cobas E411 |
| | pg/ml | 123 | 92.3 | 154 | |
| | pmol/l | 27.2 | 20.4 | 34.0 | Roche Cobas 6000/8000 |
| | pg/ml | 124 | 92.7 | 155 | |
| | pmol/l | 76.0 | 57.0 | 95.0 | CIS IRMA |
| | pg/ml | 345 | 259 | 431 | |
| | pmol/l | 40.2 | 30.2 | 50.3 | Siemens Immulite 1000 |
| | pg/ml | 183 | 137 | 229 | |
| | pmol/l | 39.0 | 29.3 | 48.8 | Diasorin Liaison |
| | pg/ml | 177 | 133 | 221 | |
| | pmol/l | 50.9 | 38.2 | 63.6 | Diasorin Liaison XL |
| | pg/ml | 231 | 174 | 288 | |
| Aldosterone | pmol/l | 760 | 570 | 950 | DRG ELISA |
| | pg/ml | 274 | 206 | 342 | |
| | pmol/l | 212 | 159 | 265 | CIS RIA |
| | pg/ml | 76.5 | 57.4 | 95.6 | |
| | pmol/l | 898 | 674 | 1123 | Immunotech RIA |
| | pg/ml | 324 | 243 | 405 | |
| | pmol/l | 579 | 434 | 724 | Diasorin Liaison |
| | pg/ml | 209 | 157 | 261 | |
| | pmol/l | 594 | 446 | 743 | Diasorin Liaison XL |
| | pg/ml | 214 | 161 | 267 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Alphafoetoprotein | KIU/l = IU/ml | 166 | 133 | 199 | Abbott AFP-EIA |
| | ng/ml | 201 | 161 | 241 | |
| | KIU/l = IU/ml | 166 | 133 | 199 | Abbott Architect |
| | ng/ml | 201 | 161 | 241 | |
| | KIU/l = IU/ml | 185 | 148 | 222 | BioMerieux Vidas |
| | ng/ml | 224 | 179 | 269 | |
| | KIU/l = IU/ml | 195 | 154 | 236 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 236 | 186 | 286 | |
| | KIU/l = IU/ml | 166 | 133 | 199 | Siemens Immulite 2000/2500 |
| | ng/ml | 201 | 161 | 241 | |
| | KIU/l = IU/ml | 175 | 140 | 210 | Siemens Immulite 1000 |
| | ng/ml | 212 | 169 | 255 | |
| | KIU/l = IU/ml | 161 | 129 | 193 | Beckman DxI800 |
| | ng/ml | 195 | 156 | 234 | |
| | KIU/l = IU/ml | 185 | 148 | 222 | Roche Elecsys |
| | ng/ml | 224 | 179 | 269 | |
| | KIU/l = IU/ml | 196 | 157 | 235 | Diasorin Liaison |
| | ng/ml | 237 | 190 | 284 | |
| | KIU/l = IU/ml | 170 | 136 | 204 | Beckman Access |
| | ng/ml | 206 | 165 | 247 | |
| | KIU/l = IU/ml | 163 | 130 | 196 | Tosoh Series |
| | ng/ml | 197 | 157 | 237 | |
| | KIU/l = IU/ml | 179 | 143 | 215 | Vitros ECi |
| | ng/ml | 186 | 149 | 223 | |
| | KIU/l = IU/ml | 190 | 152 | 228 | Roche Cobas 6000/8000 |
| | ng/ml | 230 | 184 | 276 | |
| | KIU/l = IU/ml | 285 | 228 | 342 | CIS IRMA |
| | ng/ml | 345 | 276 | 414 | |
| | KIU/l = IU/ml | 191 | 153 | 229 | Roche Cobas E411 |
| | ng/ml | 231 | 185 | 277 | |
| | KIU/l = IU/ml | 169 | 135 | 203 | Fujirebio Lumipulse G Series |
| | ng/ml | 204 | 163 | 245 | |
| | KIU/l = IU/ml | 194 | 153 | 235 | Siemens Centaur CP |
| | ng/ml | 235 | 186 | 284 | |
| | KIU/l = IU/ml | 192 | 154 | 230 | Diasorin Liaison XL |
| | ng/ml | 232 | 186 | 278 | |
| Amikacin | µmol/l | 24.0 | 19.2 | 28.8 | Roche Cobas 6000/8000 |
| | µg/ml | 14.1 | 11.2 | 17.0 | |
| | µmol/l | 24.1 | 19.3 | 28.9 | Gravimetric |
| | µg/ml | 14.1 | 11.3 | 16.9 | |
| Androstenedione | nmol/l | 32.7 | 24.5 | 40.9 | Siemens Immulite 2000 |
| | ng/ml | 9.38 | 7.03 | 11.7 | |
| | nmol/l | 22.5 | 16.9 | 28.1 | Diasorin Liaison XL |
| | ng/ml | 6.46 | 4.85 | 8.07 | |
| Beta-2-microglobulin | µg/ml = mg/l | 5.67 | 4.54 | 6.80 | Abbott Architect |
| | µg/ml = mg/l | 6.18 | 4.94 | 7.42 | BioMerieux Vidas |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Beta-2-microglobulin | µg/ml = mg/l | 5.60 | 4.48 | 6.72 | Behring Nephelometer |
| | µg/ml = mg/l | 4.77 | 3.82 | 5.72 | Siemens Immulite 2000/2500 |
| | µg/ml = mg/l | 5.79 | 4.63 | 6.95 | Tosoh Series |
| | µg/ml = mg/l | 5.59 | 4.47 | 6.71 | Roche Cobas 6000/8000 |
| | µg/ml = mg/l | 4.48 | 3.58 | 5.38 | Fujirebio Lumipulse G Series |
| | µg/ml = mg/l | 6.43 | 5.14 | 7.72 | Siemens ADVIA 1200/1650/1800/2400 |
| C-Peptide | nmol/l | 3.500 | 2.630 | 4.380 | Siemens Immulite 2000/2500 |
| | ng/ml | 10.6 | 7.94 | 13.3 | |
| | nmol/l | 3.220 | 2.420 | 4.030 | Roche Elecsys |
| | ng/ml | 9.72 | 7.31 | 12.1 | |
| | nmol/l | 3.520 | 2.640 | 4.400 | Roche Cobas 6000/8000 |
| | ng/ml | 10.6 | 7.97 | 13.2 | |
| | nmol/l | 3.410 | 2.560 | 4.260 | Siemens Immulite 1000 |
| | ng/ml | 10.3 | 7.73 | 12.9 | |
| | nmol/l | 3.910 | 2.930 | 4.890 | Diasorin Liaison |
| | ng/ml | 11.8 | 8.85 | 14.8 | |
| | nmol/l | 3.450 | 2.590 | 4.310 | Roche Cobas E411 |
| | ng/ml | 10.4 | 7.82 | 13.0 | |
| | nmol/l | 3.210 | 2.410 | 4.010 | Abbott Architect |
| | ng/ml | 9.69 | 7.28 | 12.1 | |
| | nmol/l | 2.740 | 2.060 | 3.420 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 8.27 | 6.20 | 10.3 | |
| | nmol/l | 3.250 | 2.440 | 4.060 | Tosoh Series |
| | ng/ml | 9.81 | 7.37 | 12.3 | |
| | nmol/l | 3.610 | 2.710 | 4.510 | Fujirebio Lumipulse G Series |
| | ng/ml | 10.9 | 8.18 | 13.6 | |
| | nmol/l | 3.750 | 2.810 | 4.690 | Diasorin Liaison XL |
| | ng/ml | 11.3 | 8.48 | 14.1 | |
| | nmol/l | 2.710 | 2.030 | 3.390 | Siemens Atellica IM |
| | ng/ml | 8.18 | 6.13 | 10.2 | |
| CA 15-3 | U/ml | 83.5 | 66.8 | 100 | Abbott Architect |
| | U/ml | 66.4 | 53.1 | 79.7 | BioMerieux Vidas |
| | U/ml | 75.4 | 52.0 | 98.8 | Siemens Centaur XP/XPT/Classic |
| | U/ml | 64.5 | 51.6 | 77.4 | Siemens Immulite 2000/2500 |
| | U/ml | 84.4 | 67.5 | 101 | Siemens Immulite 1000 |
| | U/ml | 27.8 | 22.2 | 33.4 | Beckman DxI800 |
| | U/ml | 71.7 | 57.4 | 86.0 | Roche Elecsys |
| | U/ml | 84.5 | 67.6 | 101 | Diasorin Liaison |
| | U/ml | 26.8 | 21.4 | 32.2 | Beckman Access |
| | U/ml | 79.1 | 63.3 | 94.9 | Tosoh Series |
| | U/ml | 69.8 | 55.8 | 83.8 | Vitros ECi |
| | U/ml | 75.2 | 60.2 | 90.2 | Roche Cobas 6000/8000 |
| | U/ml | 75.2 | 60.2 | 90.2 | Roche Cobas E411 |
| | U/ml | 84.1 | 67.3 | 101 | Fujirebio Lumipulse G Series |
| | U/ml | 74.2 | 51.2 | 97.2 | Siemens Centaur CP |
| | U/ml | 27.8 | 22.2 | 33.4 | Mindray CL-2000i |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| CA 15-3 | U/ml | 77.8 | 62.2 | 93.4 | Diasorin Liaison XL |
| CA 19-9 | U/ml | 161 | 129 | 193 | BioMerieux Vidas |
| | U/ml | 183 | 126 | 240 | Siemens Centaur XP/XPT/Classic |
| | U/ml | 231 | 185 | 277 | Siemens Immulite 2000/2500 |
| | U/ml | 200 | 160 | 240 | Beckman DxI800 |
| | U/ml | 111 | 88.8 | 133 | Roche Elecsys |
| | U/ml | 191 | 153 | 229 | Diasorin Liaison |
| | U/ml | 238 | 190 | 286 | Beckman Access |
| | U/ml | 82.9 | 66.3 | 99.0 | Tosoh Series |
| | U/ml | 229 | 183 | 275 | Vitros ECi |
| | U/ml | 401 | 321 | 481 | Abbott Architect XR/XR2 kit |
| | U/ml | 108 | 86.4 | 130 | Roche Cobas 6000/8000 |
| | U/ml | 109 | 87.2 | 131 | Roche Cobas E411 |
| | U/ml | 192 | 154 | 230 | Fujirebio Lumipulse G Series |
| | U/ml | 172 | 119 | 225 | Siemens Centaur CP |
| | U/ml | 100 | 80.0 | 120 | Mindray CL-2000i |
| | U/ml | 220 | 176 | 264 | Diasorin Liaison XL |
| CA125 | U/ml | 220 | 176 | 264 | Abbott Architect |
| | U/ml | 177 | 142 | 212 | BioMerieux Vidas |
| | U/ml | 190 | 131 | 249 | Siemens Centaur XP/XPT/Classic OV Kit |
| | U/ml | 193 | 133 | 253 | Siemens Centaur XP/XPT/Classic CA125 II kit |
| | U/ml | 185 | 148 | 222 | Siemens Immulite 2000/2500 |
| | U/ml | 208 | 166 | 250 | Siemens Immulite 1000 |
| | U/ml | 157 | 126 | 188 | Beckman DxI800 |
| | U/ml | 160 | 128 | 192 | Roche Elecsys |
| | U/ml | 241 | 193 | 289 | Diasorin Liaison |
| | U/ml | 161 | 129 | 193 | Beckman Access |
| | U/ml | 280 | 224 | 336 | Tosoh Series |
| | U/ml | 171 | 137 | 205 | Vitros ECi |
| | U/ml | 162 | 130 | 194 | Roche Cobas E411 |
| | U/ml | 160 | 128 | 192 | Roche Cobas 6000/8000 |
| | U/ml | 160 | 128 | 192 | Fujirebio Lumipulse G Series |
| | U/ml | 198 | 137 | 259 | Siemens Centaur CP CA125 II kit |
| | U/ml | 321 | 257 | 385 | Mindray CL-2000i |
| | U/ml | 220 | 176 | 264 | Diasorin Liaison XL |
| Carbamazepine | µmol/l | 69.4 | 55.5 | 83.3 | Abbott Architect |
| | µg/ml | 16.4 | 13.1 | 19.7 | |
| | µmol/l | 70.3 | 43.6 | 97.0 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 16.6 | 10.3 | 22.9 | |
| | µmol/l | 68.2 | 54.6 | 81.8 | Siemens Dimension |
| | µg/ml | 16.1 | 12.9 | 19.3 | |
| | µmol/l | 62.5 | 50.0 | 75.0 | Siemens Immulite 2000/2500 |
| | µg/ml | 14.8 | 11.8 | 17.8 | |
| | µmol/l | 62.8 | 50.2 | 75.4 | Siemens Immulite 1000 |
| | µg/ml | 14.8 | 11.9 | 17.7 | |
| | µmol/l | 75.6 | 60.5 | 90.7 | Roche Integra |
| | µg/ml | 17.9 | 14.3 | 21.5 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Carbamazepine | µmol/l | 63.5 | 50.8 | 76.2 | Vitros |
| | µg/ml | 15.0 | 12.0 | 18.0 | |
| | µmol/l | 70.5 | 56.4 | 84.6 | Roche Cobas 6000/8000 |
| | µg/ml | 16.7 | 13.3 | 20.1 | |
| | µmol/l | 69.6 | 55.7 | 83.5 | Beckman DxC |
| | µg/ml | 16.5 | 13.2 | 19.8 | |
| | µmol/l | 73.6 | 62.6 | 84.6 | Beckman AU400/600/640/2700/5400 |
| | µg/ml | 17.4 | 14.8 | 20.0 | |
| | µmol/l | 72.2 | 57.8 | 86.6 | Gravimetric |
| | µg/ml | 17.1 | 13.7 | 20.5 | |
| Carcinoembryonic Antigen (CEA) | ng/ml = µg/l | 68.1 | 54.5 | 81.7 | Abbott Architect |
| | ng/ml = µg/l | 63.8 | 51.0 | 76.6 | BioMerieux Vidas |
| | ng/ml = µg/l | 59.6 | 41.1 | 78.1 | Siemens Centaur XP/XPT/Classic |
| | ng/ml = µg/l | 55.4 | 44.3 | 66.5 | CIS RIA Coated tube |
| | ng/ml = µg/l | 77.5 | 62.0 | 93.0 | Siemens Immulite 2000/2500 |
| | ng/ml = µg/l | 85.6 | 68.5 | 103 | Siemens Immulite 1000 |
| | ng/ml = µg/l | 57.2 | 45.8 | 68.6 | Beckman DxI800 |
| | ng/ml = µg/l | 52.2 | 41.8 | 62.6 | Roche Elecsys |
| | ng/ml = µg/l | 55.2 | 44.2 | 66.2 | Diasorin Liaison |
| | ng/ml = µg/l | 60.2 | 48.2 | 72.2 | Beckman Access |
| | ng/ml = µg/l | 73.9 | 59.1 | 88.7 | Tosoh Series |
| | ng/ml = µg/l | 62.9 | 50.3 | 75.5 | Vitros ECi |
| | ng/ml = µg/l | 51.4 | 41.1 | 61.7 | Roche Cobas 6000/8000 |
| | ng/ml = µg/l | 52.5 | 42.0 | 63.0 | Roche Cobas E411 |
| | ng/ml = µg/l | 74.5 | 59.6 | 89.4 | Fujirebio Lumipulse G Series |
| | ng/ml = µg/l | 60.8 | 48.6 | 73.0 | Boditech Med Inc i-CHROMA |
| | ng/ml = µg/l | 59.6 | 41.1 | 78.1 | Siemens Centaur CP |
| | ng/ml = µg/l | 44.9 | 35.9 | 53.9 | Mindray CL-2000i |
| | ng/ml = µg/l | 65.4 | 52.3 | 78.5 | Diasorin Liaison XL |
| Cortisol | nmol/l | 821 | 616 | 1026 | Abbott Architect |
| | µg/dl | 29.6 | 22.2 | 37.0 | |
| | nmol/l | 929 | 697 | 1161 | BioMerieux Vidas |
| | µg/dl | 33.4 | 25.1 | 41.7 | |
| | nmol/l | 1062 | 733 | 1391 | Siemens Centaur XP/XPT/Classic |
| | µg/dl | 38.2 | 26.4 | 50.0 | |
| | nmol/l | 780 | 585 | 975 | CIS RIA |
| | µg/dl | 28.1 | 21.1 | 35.1 | |
| | nmol/l | 907 | 680 | 1134 | Siemens Immulite 2000/2500 |
| | µg/dl | 32.7 | 24.5 | 40.9 | |
| | nmol/l | 892 | 669 | 1115 | Siemens Immulite 1000 |
| | µg/dl | 32.1 | 24.1 | 40.1 | |
| | nmol/l | 907 | 680 | 1134 | Beckman DxI800 |
| | µg/dl | 32.7 | 24.5 | 40.9 | |
| | nmol/l | 997 | 748 | 1246 | Roche Elecsys |
| | µg/dl | 35.9 | 26.9 | 44.9 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Cortisol | nmol/l | 940 | 705 | 1175 | Diasorin Liaison |
| | µg/dl | 33.8 | 25.4 | 42.2 | |
| | nmol/l | 969 | 727 | 1211 | Beckman Access |
| | µg/dl | 34.9 | 26.2 | 43.6 | |
| | nmol/l | 1079 | 809 | 1349 | Tosoh Series |
| | µg/dl | 38.8 | 29.1 | 48.5 | |
| | nmol/l | 899 | 674 | 1124 | Vitros ECi |
| | µg/dl | 32.4 | 24.3 | 40.5 | |
| | nmol/l | 955 | 716 | 1194 | Roche Cobas 6000/8000 |
| | µg/dl | 34.4 | 25.8 | 43.0 | |
| | nmol/l | 1050 | 788 | 1313 | Roche Cobas E411 |
| | µg/dl | 37.8 | 28.4 | 47.2 | |
| | nmol/l | 1094 | 755 | 1433 | Siemens Centaur CP |
| | µg/dl | 39.4 | 27.2 | 51.6 | |
| | nmol/l | 1051 | 788 | 1314 | Roche Cobas 4000/e411 Gen II |
| | µg/dl | 37.8 | 28.4 | 47.2 | |
| | nmol/l | 972 | 729 | 1215 | Roche Cobas 6000/8000 Gen II |
| | µg/dl | 35.0 | 26.2 | 43.8 | |
| | nmol/l | 963 | 722 | 1204 | Roche Elecsys Gen II |
| | µg/dl | 34.7 | 26.0 | 43.4 | |
| | nmol/l | 1030 | 773 | 1288 | Diasorin Liaison XL |
| | µg/dl | 37.1 | 27.8 | 46.4 | |
| DHEA-S | µmol/l | 21.6 | 17.3 | 25.9 | Abbott Architect |
| | µmol/l | 17.3 | 13.8 | 20.8 | Siemens Immulite 2000/2500 |
| | µmol/l | 18.5 | 14.8 | 22.2 | Siemens Immulite 1000 |
| | µmol/l | 17.5 | 14.0 | 21.0 | Beckman DxI800 |
| | µmol/l | 26.1 | 20.9 | 31.3 | Roche Elecsys |
| | µmol/l | 17.5 | 14.0 | 21.0 | Beckman Access |
| | µmol/l | 16.5 | 13.2 | 19.8 | Diasorin Liaison |
| | µmol/l | 17.8 | 10.7 | 24.9 | Siemens Centaur XP/XPT/Classic |
| | µmol/l | 26.1 | 20.9 | 31.3 | Roche Cobas E411 |
| | µmol/l | 26.2 | 21.0 | 31.4 | Roche Cobas 6000/8000 |
| | µmol/l | 18.4 | 11.0 | 25.8 | Siemens Centaur CP |
| Digoxin | nmol/l | 4.24 | 3.39 | 5.09 | Abbott Architect |
| | ng/ml | 3.31 | 2.65 | 3.97 | |
| | nmol/l | 5.04 | 4.03 | 6.05 | BioMerieux Vidas |
| | ng/ml | 3.94 | 3.15 | 4.73 | |
| | nmol/l | 5.23 | 4.08 | 6.38 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 4.08 | 3.18 | 4.98 | |
| | nmol/l | 5.04 | 4.03 | 6.05 | Siemens Dimension |
| | ng/ml | 3.94 | 3.15 | 4.73 | |
| | nmol/l | 5.40 | 4.32 | 6.48 | Siemens Immulite 2000/2500 |
| | ng/ml | 4.22 | 3.37 | 5.07 | |
| | nmol/l | 5.96 | 4.77 | 7.15 | Siemens Immulite 1000 |
| | ng/ml | 4.65 | 3.73 | 5.57 | |
| | nmol/l | 4.92 | 3.94 | 5.90 | Beckman DxI800 |
| | ng/ml | 3.84 | 3.08 | 4.60 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Digoxin | nmol/l | 5.19 | 4.15 | 6.23 | Roche Integra |
| | ng/ml | 4.05 | 3.24 | 4.86 | |
| | nmol/l | 4.92 | 3.94 | 5.90 | Beckman Access |
| | ng/ml | 3.84 | 3.08 | 4.60 | |
| | nmol/l | 4.70 | 3.76 | 5.64 | Vitros |
| | ng/ml | 3.67 | 2.94 | 4.40 | |
| | nmol/l | 4.92 | 3.94 | 5.90 | Roche Cobas 6000/8000 |
| | ng/ml | 3.84 | 3.08 | 4.60 | |
| | nmol/l | 5.25 | 4.20 | 6.30 | Beckman AU400/600/640/2700/5400 |
| | ng/ml | 4.10 | 3.28 | 4.92 | |
| | nmol/l | 4.98 | 3.98 | 5.98 | Siemens ADVIA 1200/1650/1800/2400 |
| | ng/ml | 3.89 | 3.11 | 4.67 | |
| | nmol/l | 5.33 | 4.26 | 6.40 | Roche Cobas 4000/E411 |
| | ng/ml | 4.16 | 3.33 | 4.99 | |
| | nmol/l | 5.12 | 4.10 | 6.14 | Gravimetric |
| | ng/ml | 4.00 | 3.20 | 4.80 | |
| Ethosuximide | µmol/l | 493 | 394 | 592 | Gravimetric |
| | µg/ml | 69.9 | 55.9 | 83.9 | |
| Ferritin | ng/ml = µg/l | 368 | 294 | 442 | Abbott Architect |
| | ng/ml = µg/l | 269 | 215 | 323 | BioMerieux Vidas |
| | ng/ml = µg/l | 311 | 249 | 373 | Roche Tinaquant |
| | ng/ml = µg/l | 315 | 246 | 384 | Siemens Centaur XP/XPT/Classic |
| | ng/ml = µg/l | 300 | 240 | 360 | Siemens Dimension |
| | ng/ml = µg/l | 286 | 229 | 343 | Siemens Immulite 2000/2500 |
| | ng/ml = µg/l | 243 | 194 | 292 | Siemens Immulite 1000 |
| | ng/ml = µg/l | 232 | 186 | 278 | Beckman DxI800 |
| | ng/ml = µg/l | 337 | 270 | 404 | Roche Elecsys |
| | ng/ml = µg/l | 342 | 274 | 410 | Diasorin Liaison |
| | ng/ml = µg/l | 335 | 268 | 402 | Roche Modular E170 |
| | ng/ml = µg/l | 243 | 194 | 292 | Beckman Access |
| | ng/ml = µg/l | 228 | 182 | 274 | Tosoh Series |
| | ng/ml = µg/l | 208 | 166 | 250 | Vitros ECi |
| | ng/ml = µg/l | 277 | 222 | 332 | Immunotech IRMA |
| | ng/ml = µg/l | 333 | 266 | 400 | Roche Cobas E411 |
| | ng/ml = µg/l | 266 | 213 | 319 | Beckman AU400/600/640/2700/5400 |
| | ng/ml = µg/l | 199 | 159 | 239 | Fujirebio Lumipulse G Series |
| | ng/ml = µg/l | 297 | 232 | 362 | Siemens Centaur CP |
| | ng/ml = µg/l | 350 | 280 | 420 | Diasorin Liaison XL |
| Folate | nmol/l | 13.8 | 10.5 | 17.1 | Abbott Architect |
| | ng/ml | 6.09 | 4.63 | 7.55 | |
| | nmol/l | 25.6 | 15.4 | 35.8 | Siemens Centaur XP/XPT/Classic (enhanced kit) |
| | ng/ml | 11.3 | 6.78 | 15.8 | |
| | nmol/l | 12.2 | 9.27 | 15.1 | Siemens Immulite 2000 |
| | ng/ml | 5.38 | 4.09 | 6.67 | |
| | nmol/l | 19.3 | 14.7 | 23.9 | Beckman DxI800 |
| | ng/ml | 8.51 | 6.48 | 10.5 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Folate | nmol/l | 19.0 | 14.4 | 23.6 | Beckman Access |
| | ng/ml | 8.38 | 6.35 | 10.4 | |
| | nmol/l | 28.2 | 21.4 | 35.0 | Tosoh Series |
| | ng/ml | 12.4 | 9.44 | 15.4 | |
| | nmol/l | 11.7 | 8.89 | 14.5 | Vitros ECi |
| | ng/ml | 5.16 | 3.92 | 6.40 | |
| | nmol/l | 16.9 | 12.8 | 21.0 | MP Biomedicals RIA |
| | ng/ml | 7.45 | 5.64 | 9.26 | |
| | nmol/l | 13.0 | 9.88 | 16.1 | Siemens Dimension |
| | ng/ml | 5.73 | 4.36 | 7.10 | |
| Free T3 | pmol/l | 22.9 | 17.2 | 28.6 | Abbott Architect |
| | ng/dl | 1.49 | 1.12 | 1.86 | |
| | pg/ml | 14.9 | 11.2 | 18.6 | |
| | pmol/l | 22.3 | 16.7 | 27.9 | BioMerieux Vidas |
| | ng/dl | 1.45 | 1.09 | 1.81 | |
| | pg/ml | 14.5 | 10.9 | 18.1 | |
| | pmol/l | 21.9 | 13.1 | 30.7 | Siemens Centaur XP/XPT/Classic |
| | ng/dl | 1.42 | 0.852 | 1.99 | |
| | pg/ml | 14.3 | 8.58 | 20.0 | |
| | pmol/l | 16.2 | 12.2 | 20.3 | Siemens Immulite 2000/2500 |
| | ng/dl | 1.05 | 0.793 | 1.31 | |
| | pg/ml | 10.5 | 7.94 | 13.1 | |
| | pmol/l | 15.8 | 11.9 | 19.8 | Siemens Immulite 1000 |
| | ng/dl | 1.03 | 0.774 | 1.29 | |
| | pg/ml | 10.3 | 7.75 | 12.9 | |
| | pmol/l | 17.4 | 13.1 | 21.8 | Beckman DxI800 |
| | ng/dl | 1.13 | 0.852 | 1.41 | |
| | pg/ml | 11.3 | 8.53 | 14.1 | |
| | pmol/l | 29.1 | 21.8 | 36.4 | Roche Elecsys |
| | ng/dl | 1.89 | 1.42 | 2.36 | |
| | pg/ml | 18.9 | 14.2 | 23.6 | |
| | pmol/l | 35.9 | 26.9 | 44.9 | Diasorin Liaison |
| | ng/dl | 2.33 | 1.75 | 2.91 | |
| | pg/ml | 23.4 | 17.5 | 29.3 | |
| | pmol/l | 19.0 | 14.3 | 23.8 | Beckman Access |
| | ng/dl | 1.24 | 0.930 | 1.55 | |
| | pg/ml | 12.4 | 9.31 | 15.5 | |
| | pmol/l | 33.3 | 25.0 | 41.6 | Tosoh Series |
| | ng/dl | 2.16 | 1.63 | 2.69 | |
| | pg/ml | 21.7 | 16.3 | 27.1 | |
| | pmol/l | 35.0 | 26.3 | 43.8 | Vitros ECi |
| | ng/dl | 2.28 | 1.71 | 2.85 | |
| | pg/ml | 22.8 | 17.1 | 28.5 | |
| | pmol/l | 28.2 | 21.2 | 35.3 | Roche Cobas E411 |
| | ng/dl | 1.83 | 1.38 | 2.28 | |
| | pg/ml | 18.4 | 13.8 | 23.0 | |

RANDOX

## IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Free T3 | pmol/l | 29.3 | 22.0 | 36.6 | Roche Cobas 6000/8000 |
| | ng/dl | 1.90 | 1.43 | 2.37 | |
| | pg/ml | 19.1 | 14.3 | 23.9 | |
| | pmol/l | 21.5 | 12.9 | 30.1 | Siemens Centaur CP |
| | ng/dl | 1.40 | 0.840 | 1.96 | |
| | pg/ml | 14.0 | 8.40 | 19.6 | |
| | pmol/l | 21.5 | 16.1 | 26.9 | Mindray CL-2000i |
| | ng/dl | 1.40 | 1.05 | 1.75 | |
| | pg/ml | 14.0 | 10.5 | 17.5 | |
| | pmol/l | 35.9 | 26.9 | 44.9 | Diasorin Liaison XL |
| | ng/dl | 2.33 | 1.75 | 2.91 | |
| | pg/ml | 23.4 | 17.5 | 29.3 | |
| Free T4 | pmol/l | 41.3 | 31.0 | 51.6 | Abbott Architect |
| | ng/dl | 3.22 | 2.42 | 4.02 | |
| | pg/ml | 32.2 | 24.2 | 40.2 | |
| | pmol/l | 41.3 | 31.0 | 51.6 | Siemens Centaur XP/XPT/Classic |
| | ng/dl | 3.22 | 2.42 | 4.02 | |
| | pg/ml | 32.2 | 24.2 | 40.2 | |
| | pmol/l | 47.7 | 35.8 | 59.6 | CIS RIA Coated tube |
| | ng/dl | 3.72 | 2.79 | 4.65 | |
| | pg/ml | 37.2 | 27.9 | 46.5 | |
| | pmol/l | 59.7 | 44.8 | 74.6 | Siemens Immulite 2000/2500 |
| | ng/dl | 4.66 | 3.49 | 5.83 | |
| | pg/ml | 46.6 | 34.9 | 58.3 | |
| | pmol/l | 60.1 | 45.1 | 75.1 | Siemens Immulite 1000 |
| | ng/dl | 4.69 | 3.52 | 5.86 | |
| | pg/ml | 46.9 | 35.2 | 58.6 | |
| | pmol/l | 48.4 | 36.3 | 60.5 | Beckman DxI800 |
| | ng/dl | 3.78 | 2.83 | 4.73 | |
| | pg/ml | 37.8 | 28.3 | 47.3 | |
| | pmol/l | 60.0 | 45.0 | 75.0 | Roche Elecsys |
| | ng/dl | 4.68 | 3.51 | 5.85 | |
| | pg/ml | 46.8 | 35.1 | 58.5 | |
| | pmol/l | 81.7 | 61.3 | 102 | Diasorin Liaison |
| | ng/dl | 6.37 | 4.78 | 7.96 | |
| | pg/ml | 63.7 | 47.8 | 79.6 | |
| | pmol/l | 45.1 | 33.8 | 56.4 | Beckman Access |
| | ng/dl | 3.52 | 2.64 | 4.40 | |
| | pg/ml | 35.2 | 26.4 | 44.0 | |
| | pmol/l | 60.4 | 45.3 | 75.5 | Tosoh Series |
| | ng/dl | 4.71 | 3.53 | 5.89 | |
| | pg/ml | 47.1 | 35.3 | 58.9 | |
| | pmol/l | 89.8 | 67.4 | 112 | Vitros ECi |
| | ng/dl | 7.00 | 5.26 | 8.74 | |
| | pg/ml | 70.0 | 52.6 | 87.4 | |

RANDOX

## IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Free T4 | pmol/l | 57.9 | 43.4 | 72.4 | Roche Cobas 6000/8000 |
| | ng/dl | 4.52 | 3.39 | 5.65 | |
| | pg/ml | 45.2 | 33.9 | 56.5 | |
| | pmol/l | 47.0 | 35.3 | 58.8 | Immunotech IRMA |
| | ng/dl | 3.67 | 2.75 | 4.59 | |
| | pg/ml | 36.7 | 27.5 | 45.9 | |
| | pmol/l | 59.1 | 44.3 | 73.9 | Roche Cobas E411 |
| | ng/dl | 4.61 | 3.46 | 5.76 | |
| | pg/ml | 46.1 | 34.6 | 57.6 | |
| | pmol/l | 62.3 | 46.7 | 77.9 | Biomerieux Vidas FT4N Kit |
| | ng/dl | 4.86 | 3.64 | 6.08 | |
| | pg/ml | 48.6 | 36.4 | 60.8 | |
| | pmol/l | 44.1 | 33.1 | 55.1 | Siemens Centaur CP |
| | ng/dl | 3.44 | 2.58 | 4.30 | |
| | pg/ml | 34.4 | 25.8 | 43.0 | |
| | pmol/l | 44.1 | 33.1 | 55.1 | Mindray CL-2000i |
| | ng/dl | 3.44 | 2.58 | 4.30 | |
| | pg/ml | 34.4 | 25.8 | 43.0 | |
| | pmol/l | 89.0 | 66.8 | 111 | Diasorin Liaison XL |
| | ng/dl | 6.94 | 5.21 | 8.67 | |
| | pg/ml | 69.4 | 52.1 | 86.7 | |
| FSH | mU/ml | 54.4 | 43.5 | 65.3 | Abbott Architect |
| | mU/ml | 73.1 | 58.5 | 87.7 | BioMerieux Vidas |
| | mU/ml | 77.5 | 60.5 | 94.5 | Siemens Centaur XP/XPT/Classic |
| | mU/ml | 60.5 | 48.4 | 72.6 | Siemens Immulite 2000/2500 |
| | mU/ml | 59.0 | 47.2 | 70.8 | Siemens Immulite 1000 |
| | mU/ml | 62.7 | 50.2 | 75.2 | Beckman DxI800 |
| | mU/ml | 56.7 | 45.4 | 68.0 | Roche/BM Elecsys |
| | mU/ml | 75.5 | 60.4 | 90.6 | Diasorin Liaison |
| | mU/ml | 62.3 | 49.8 | 74.8 | Beckman Access |
| | mU/ml | 56.9 | 45.5 | 68.3 | Tosoh Series |
| | mU/ml | 45.6 | 36.5 | 54.7 | Vitros ECi |
| | mU/ml | 58.7 | 47.0 | 70.4 | Roche Cobas E411 |
| | mU/ml | 55.7 | 44.6 | 66.8 | Roche Cobas 6000/8000 |
| | mU/ml | 48.5 | 38.8 | 58.2 | Immunotech IRMA |
| | mU/ml | 48.9 | 39.1 | 58.7 | Fujirebio Lumipulse G Series |
| | mU/ml | 68.1 | 53.1 | 83.1 | Siemens Centaur CP |
| | mU/ml | 84.4 | 67.5 | 101 | Diasorin Liaison XL |
| Gentamicin | µmol/l | 11.0 | 8.80 | 13.2 | Roche Integra |
| | µg/ml | 5.26 | 4.21 | 6.31 | |
| | µmol/l | 11.6 | 9.28 | 13.9 | Siemens Dimension Vista |
| | µg/ml | 5.54 | 4.44 | 6.64 | |
| | µmol/l | 9.55 | 7.64 | 11.5 | Roche Cobas 6000/8000 |
| | µg/ml | 4.56 | 3.65 | 5.47 | |
| | µmol/l | 11.7 | 9.36 | 14.0 | Gravimetric |
| | µg/ml | 5.59 | 4.47 | 6.69 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Growth Hormone (GH) | µU/ml | 43.8 | 35.0 | 52.6 | CIS IRMA |
| | ng/ml | 14.6 | 11.7 | 17.5 | |
| | µU/ml | 43.8 | 35.0 | 52.6 | Siemens Immulite 2000/2500 |
| | ng/ml | 14.6 | 11.7 | 17.5 | |
| | µU/ml | 43.5 | 34.8 | 52.2 | Siemens Immulite 1000 |
| | ng/ml | 14.5 | 11.6 | 17.4 | |
| | µU/ml | 36.9 | 29.5 | 44.3 | Beckman DxI800 |
| | ng/ml | 12.3 | 9.82 | 14.8 | |
| | µU/ml | 38.3 | 30.6 | 46.0 | Beckman Access |
| | ng/ml | 12.8 | 10.2 | 15.4 | |
| | µU/ml | 45.8 | 36.6 | 55.0 | Tosoh Series |
| | ng/ml | 15.3 | 12.2 | 18.4 | |
| | µU/ml | 40.4 | 32.3 | 48.5 | Diasorin Liaison |
| | ng/ml | 13.5 | 10.8 | 16.2 | |
| | µU/ml | 41.5 | 33.2 | 49.8 | Roche Cobas E411 |
| | ng/ml | 13.8 | 11.1 | 16.5 | |
| | µU/ml | 39.1 | 31.3 | 46.9 | Roche Cobas 6000/8000 |
| | ng/ml | 13.0 | 10.4 | 15.6 | |
| | µU/ml | 41.8 | 33.4 | 50.2 | IDS iSYS |
| | ng/ml | 13.9 | 11.1 | 16.7 | |
| | µU/ml | 38.5 | 30.8 | 46.2 | Diasorin Liaison XL |
| | ng/ml | 12.8 | 10.3 | 15.3 | |
| Immunoglobulin E | KIU/l = IU/ml | 537 | 430 | 644 | Abbott Architect |
| | KIU/l = IU/ml | 493 | 394 | 592 | Beckman Immage |
| | KIU/l = IU/ml | 554 | 443 | 665 | BioMerieux Vidas |
| | KIU/l = IU/ml | 605 | 363 | 847 | Siemens Centaur XP/XPT/Classic |
| | KIU/l = IU/ml | 570 | 456 | 684 | Siemens Immulite 2000/2500 |
| | KIU/l = IU/ml | 601 | 481 | 721 | Siemens Immulite 1000 |
| | KIU/l = IU/ml | 574 | 459 | 689 | Roche Elecsys |
| | KIU/l = IU/ml | 549 | 439 | 659 | Pharmacia Unicap |
| | KIU/l = IU/ml | 554 | 443 | 665 | Tosoh Series |
| | KIU/l = IU/ml | 600 | 480 | 720 | Roche Cobas E411 |
| | KIU/l = IU/ml | 611 | 489 | 733 | Roche Cobas 6000/8000 |
| | KIU/l = IU/ml | 483 | 386 | 580 | Fujirebio Lumipulse G Series |
| | KIU/l = IU/ml | 578 | 347 | 809 | Siemens Centaur CP |
| Insulin | mU/l | 24.8 | 18.6 | 31.0 | Siemens Centaur XP/XPT/Classic |
| | µU/ml | 24.8 | 18.6 | 31.0 | |
| | mU/l | 11.6 | 8.70 | 14.5 | Siemens Immulite 1000 |
| | µU/ml | 11.6 | 8.70 | 14.5 | |
| | mU/l | 11.1 | 8.33 | 13.9 | Siemens Immulite 2000 |
| | µU/ml | 11.1 | 8.33 | 13.9 | |
| | mU/l | 32.9 | 24.7 | 41.1 | Roche Elecsys |
| | µU/ml | 32.9 | 24.7 | 41.1 | |
| | mU/l | 26.4 | 19.8 | 33.0 | Beckman Access |
| | µU/ml | 26.4 | 19.8 | 33.0 | |
| | mU/l | 25.9 | 19.4 | 32.4 | Abbott Architect |
| | µU/ml | 25.9 | 19.4 | 32.4 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Insulin | mU/l | 49.7 | 37.3 | 62.1 | Tosoh Series |
| | µU/ml | 49.7 | 37.3 | 62.1 | |
| | mU/l | 33.4 | 25.1 | 41.8 | Roche Cobas E411 |
| | µU/ml | 33.4 | 25.1 | 41.8 | |
| | mU/l | 25.1 | 18.8 | 31.4 | Beckman DxI 600/800 |
| | µU/ml | 25.1 | 18.8 | 31.4 | |
| | mU/l | 35.5 | 26.6 | 44.4 | Diasorin Liaison |
| | µU/ml | 35.5 | 26.6 | 44.4 | |
| | mU/l | 33.8 | 25.4 | 42.3 | Roche Cobas 6000/8000 |
| | µU/ml | 33.8 | 25.4 | 42.3 | |
| | mU/l | 30.1 | 22.6 | 37.6 | Fujirebio Lumipulse G Series |
| | µU/ml | 30.1 | 22.6 | 37.6 | |
| | mU/l | 26.8 | 20.1 | 33.5 | Siemens Centaur CP |
| | µU/ml | 26.8 | 20.1 | 33.5 | |
| | mU/l | 35.8 | 26.9 | 44.8 | Diasorin Liaison XL |
| | µU/ml | 35.8 | 26.9 | 44.8 | |
| | mU/l | 26.9 | 20.2 | 33.6 | Siemens Atellica IM |
| | µU/ml | 26.9 | 20.2 | 33.6 | |
| Luteinising Hormone (LH) | mU/ml | 40.8 | 32.6 | 49.0 | Abbott Architect |
| | mU/ml | 50.6 | 40.5 | 60.7 | BioMerieux Vidas |
| | mU/ml | 46.5 | 35.8 | 57.2 | Siemens Centaur XP/XPT/Classic |
| | mU/ml | 75.7 | 60.6 | 90.8 | Siemens Immulite 2000 |
| | mU/ml | 77.5 | 62.0 | 93.0 | Siemens Immulite 1000 |
| | mU/ml | 38.2 | 30.6 | 45.8 | Beckman DxI800 |
| | mU/ml | 53.0 | 42.4 | 63.6 | Roche Elecsys |
| | mU/ml | 62.6 | 50.1 | 75.1 | Diasorin Liaison |
| | mU/ml | 39.2 | 31.4 | 47.0 | Beckman Access |
| | mU/ml | 45.6 | 36.5 | 54.7 | Tosoh Series |
| | mU/ml | 52.8 | 42.2 | 63.4 | Vitros ECi |
| | mU/ml | 52.7 | 42.2 | 63.2 | Roche Cobas E411 |
| | mU/ml | 52.4 | 41.9 | 62.9 | Roche Cobas 6000/8000 |
| | mU/ml | 47.0 | 37.6 | 56.4 | Fujirebio Lumipulse G Series |
| | mU/ml | 50.5 | 38.9 | 62.1 | Siemens Centaur CP |
| | mU/ml | 56.9 | 45.5 | 68.3 | Mindray CL-2000i |
| | mU/ml | 64.6 | 51.7 | 77.5 | Diasorin Liaison XL |
| Oestradiol | pmol/l | 1436 | 1149 | 1723 | Abbott Architect |
| | pg/ml | 391 | 313 | 469 | |
| | pmol/l | 3146 | 2517 | 3775 | BioMerieux Vidas |
| | pg/ml | 856 | 685 | 1027 | |
| | pmol/l | 2790 | 1730 | 3850 | Siemens Centaur XP/XPT/Classic |
| | pg/ml | 759 | 471 | 1047 | |
| | pmol/l | 2508 | 2006 | 3010 | Siemens Immulite 2000/2500 |
| | pg/ml | 682 | 546 | 818 | |
| | pmol/l | 2495 | 1996 | 2994 | Siemens Immulite 1000 |
| | pg/ml | 679 | 543 | 815 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Oestradiol | pmol/l | 2204 | 1763 | 2645 | Beckman DxI800 |
| | pg/ml | 599 | 480 | 718 | |
| | pmol/l | 1663 | 1330 | 1996 | Roche Elecsys (Estradiol II) |
| | pg/ml | 452 | 362 | 542 | |
| | pmol/l | 2394 | 1915 | 2873 | Beckman Access |
| | pg/ml | 651 | 521 | 781 | |
| | pmol/l | 2152 | 1722 | 2582 | Tosoh (E2) |
| | pg/ml | 585 | 468 | 702 | |
| | pmol/l | 2655 | 2124 | 3186 | Vitros ECi |
| | pg/ml | 722 | 578 | 866 | |
| | pmol/l | 1685 | 1348 | 2022 | Roche Cobas 6000/8000 (Estradiol II) |
| | pg/ml | 458 | 367 | 549 | |
| | pmol/l | 1704 | 1363 | 2045 | Roche Cobas 4000/E411 (Estradiol II) |
| | pg/ml | 463 | 371 | 555 | |
| | pmol/l | 2746 | 1703 | 3789 | Siemens Centaur XP/XPT/Classic Enhanced (eE2) |
| | pg/ml | 747 | 463 | 1031 | |
| | pmol/l | 2068 | 1654 | 2482 | Tosoh (iE2-hsE2) |
| | pg/ml | 562 | 450 | 674 | |
| | pmol/l | 2894 | 1794 | 3994 | Siemens Centaur CP |
| | pg/ml | 787 | 488 | 1086 | |
| | pmol/l | 2919 | 1810 | 4028 | Siemens Centaur CP Enhanced (eE2) |
| | pg/ml | 794 | 492 | 1096 | |
| | pmol/l | 2309 | 1847 | 2771 | Fujirebio Lumipulse G Series |
| | pg/ml | 628 | 502 | 754 | |
| | pmol/l | 1702 | 1362 | 2042 | Roche Cobas 6000/8000 (Estradiol III) |
| | pg/ml | 463 | 370 | 556 | |
| | pmol/l | 1699 | 1359 | 2039 | Roche Elecsys (Estradiol III) |
| | pg/ml | 462 | 370 | 554 | |
| | pmol/l | 1690 | 1352 | 2028 | Roche Cobas 4000/E411 (Estradiol III) |
| | pg/ml | 460 | 368 | 552 | |
| | pmol/l | 1344 | 1075 | 1613 | Diasorin Liaison XL |
| | pg/ml | 366 | 292 | 440 | |
| Paracetamol | mmol/l | 0.463 | 0.368 | 0.552 | Roche Integra |
| | mg/l | 69.6 | 55.7 | 83.5 | |
| | mmol/l | 0.500 | 0.400 | 0.600 | Abbott Architect |
| | mg/l | 75.7 | 60.5 | 90.9 | |
| | mmol/l | 0.499 | 0.400 | 0.600 | Roche Cobas 6000/8000 |
| | mg/l | 75.7 | 60.5 | 90.9 | |
| | mmol/l | 0.529 | 0.420 | 0.630 | Gravimetric |
| | mg/l | 80.0 | 63.5 | 95.3 | |
| Phenobarbital | µmol/l | 123 | 98.4 | 148 | Abbott Architect |
| | µg/ml | 28.5 | 22.8 | 34.2 | |
| | µmol/l | 121 | 96.8 | 145 | Roche Cobas 6000/8000 |
| | µg/ml | 28.1 | 22.5 | 33.7 | |
| | µmol/l | 122 | 97.6 | 146 | Siemens Immulite 2000/2500 |
| | µg/ml | 28.3 | 22.6 | 34.0 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Phenobarbital | µmol/l | 117 | 93.6 | 140 | Beckman AU400/600/640/2700/5400 |
| | µg/ml | 27.1 | 21.7 | 32.5 | |
| | µmol/l | 161 | 117 | 205 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 37.4 | 27.3 | 47.5 | |
| | µmol/l | 116 | 92.8 | 139 | Roche Integra |
| | µg/ml | 26.9 | 21.5 | 32.3 | |
| | µmol/l | 122 | 97.6 | 146 | Siemens Immulite 1000 |
| | µg/ml | 28.3 | 22.6 | 34.0 | |
| | µmol/l | 113 | 90.4 | 136 | Beckman DxC |
| | µg/ml | 26.2 | 21.0 | 31.4 | |
| | µmol/l | 121 | 96.8 | 145 | Gravimetric |
| | µg/ml | 28.1 | 22.5 | 33.6 | |
| Phenytoin | µmol/l | 93.5 | 74.8 | 112 | Abbott Architect |
| | µg/ml | 23.6 | 18.9 | 28.3 | |
| | µmol/l | 116 | 90.5 | 142 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 29.3 | 22.9 | 35.7 | |
| | µmol/l | 107 | 85.6 | 128 | Siemens Dimension |
| | µg/ml | 27.0 | 21.6 | 32.4 | |
| | µmol/l | 87.9 | 70.3 | 105 | Siemens Immulite 2000/2500 |
| | µg/ml | 22.2 | 17.8 | 26.6 | |
| | µmol/l | 90.1 | 72.1 | 108 | Siemens Immulite 1000 |
| | µg/ml | 22.8 | 18.2 | 27.4 | |
| | µmol/l | 92.9 | 74.3 | 111 | Roche Integra |
| | µg/ml | 23.5 | 18.8 | 28.2 | |
| | µmol/l | 96.8 | 77.4 | 116 | Vitros |
| | µg/ml | 24.4 | 19.5 | 29.3 | |
| | µmol/l | 92.7 | 74.2 | 111 | Roche Cobas 6000/8000 |
| | µg/ml | 23.4 | 18.7 | 28.1 | |
| | µmol/l | 90.6 | 72.5 | 109 | Beckman DxC |
| | µg/ml | 22.9 | 18.3 | 27.5 | |
| | µmol/l | 99.8 | 79.8 | 120 | Gravimetric |
| | µg/ml | 25.2 | 20.1 | 30.3 | |
| Primidone | µmol/l | 32.7 | 26.2 | 39.2 | Gravimetric |
| | µg/ml | 7.14 | 5.72 | 8.56 | |
| Progesterone | nmol/l | 90.7 | 72.6 | 109 | Abbott Architect |
| | ng/ml | 28.4 | 22.7 | 34.1 | |
| | nmol/l | 150 | 120 | 180 | BioMerieux Vidas |
| | ng/ml | 47.0 | 37.6 | 56.4 | |
| | nmol/l | 74.5 | 52.9 | 96.1 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 23.3 | 16.5 | 30.1 | |
| | nmol/l | 69.3 | 55.4 | 83.2 | Siemens Immulite 2000/2500 |
| | ng/ml | 21.7 | 17.3 | 26.1 | |
| | nmol/l | 80.2 | 64.2 | 96.2 | Siemens Immulite 1000 |
| | ng/ml | 25.1 | 20.1 | 30.1 | |
| | nmol/l | 100 | 80.0 | 120 | Beckman Dxl Prog Cal 33555 |
| | ng/ml | 31.3 | 25.0 | 37.6 | |

RANDOX

## IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Progesterone | nmol/l | 103 | 82.4 | 124 | Roche Elecsys (Prog. II) |
| | ng/ml | 32.2 | 25.8 | 38.6 | |
| | nmol/l | 100 | 80.0 | 120 | Beckman Access Prog Cal 33555 |
| | ng/ml | 31.3 | 25.0 | 37.6 | |
| | nmol/l | 114 | 91.2 | 137 | Tosoh Series |
| | ng/ml | 35.7 | 28.5 | 42.9 | |
| | nmol/l | 107 | 85.6 | 128 | Vitros ECi |
| | ng/ml | 33.5 | 26.8 | 40.2 | |
| | nmol/l | 103 | 82.4 | 124 | Roche Cobas 4000/e411 (Prog. II) |
| | ng/ml | 32.2 | 25.8 | 38.6 | |
| | nmol/l | 106 | 84.8 | 127 | Roche Cobas 6000/8000 (Prog. II) |
| | ng/ml | 33.2 | 26.5 | 39.9 | |
| | nmol/l | 86.6 | 69.3 | 104 | Diasorin Liaison |
| | ng/ml | 27.1 | 21.7 | 32.5 | |
| | nmol/l | 99.0 | 79.2 | 119 | Beckman DxI Prog DE Cal A80773 |
| | ng/ml | 31.0 | 24.8 | 37.2 | |
| | nmol/l | 101 | 80.8 | 121 | Beckman Access Prog DE Cal A80773 |
| | ng/ml | 31.6 | 25.3 | 37.9 | |
| | nmol/l | 77.5 | 55.0 | 100 | Siemens Centaur CP |
| | ng/ml | 24.3 | 17.3 | 31.3 | |
| | nmol/l | 106 | 84.8 | 127 | Mindray CL-2000i |
| | ng/ml | 33.2 | 26.5 | 39.9 | |
| | nmol/l | 103 | 82.4 | 124 | Fujirebio Lumipulse G Series |
| | ng/ml | 32.2 | 25.8 | 38.6 | |
| | nmol/l | 105 | 84.0 | 126 | Roche Cobas 6000/8000 (Prog. III) |
| | ng/ml | 32.9 | 26.3 | 39.5 | |
| | nmol/l | 104 | 83.2 | 125 | Roche Elecsys (Prog. III) |
| | ng/ml | 32.6 | 26.0 | 39.2 | |
| | nmol/l | 104 | 83.2 | 125 | Roche Cobas 4000/e411 (Prog. III) |
| | ng/ml | 32.6 | 26.0 | 39.2 | |
| Prolactin | µU/ml | 1108 | 886 | 1330 | Abbott Architect |
| | µU/ml | 1290 | 1032 | 1548 | BioMerieux Vidas |
| | µU/ml | 914 | 686 | 1142 | Siemens Centaur XP/XPT/Classic |
| | µU/ml | 948 | 758 | 1138 | Siemens Immulite 2000/2500 |
| | µU/ml | 1003 | 802 | 1204 | Siemens Immulite 1000 |
| | µU/ml | 856 | 685 | 1027 | Beckman DxI800 |
| | µU/ml | 1029 | 823 | 1235 | Roche Elecsys |
| | µU/ml | 1100 | 880 | 1320 | Diasorin Liaison |
| | µU/ml | 879 | 703 | 1055 | Beckman Access |
| | µU/ml | 1005 | 804 | 1206 | Tosoh Series |
| | µU/ml | 917 | 734 | 1100 | Vitros ECi |
| | µU/ml | 1024 | 819 | 1229 | Roche Elecsys/E170/Cobas 6000/8000 PRLII |
| | µU/ml | 1011 | 809 | 1213 | Immunotech IRMA |
| | µU/ml | 1061 | 849 | 1273 | Roche Cobas E411 |
| | µU/ml | 1019 | 815 | 1223 | Roche Cobas 6000/8000 |
| | µU/ml | 1243 | 994 | 1492 | Fujirebio Lumipulse G Series |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Prolactin | µU/ml | 943 | 707 | 1179 | Siemens Centaur CP |
| | µU/ml | 1230 | 984 | 1476 | Mindray CL-2000i |
| | µU/ml | 1146 | 917 | 1375 | Diasorin Liaison XL |
| PSA Free | ng/ml = µg/l | 28.5 | 21.4 | 35.6 | Abbott Architect |
| | ng/ml = µg/l | 21.1 | 15.8 | 26.4 | Siemens Centaur XP/XPT/Classic |
| | ng/ml = µg/l | 22.4 | 16.8 | 28.0 | Siemens Immulite 2000/2500 |
| | ng/ml = µg/l | 19.2 | 14.4 | 24.0 | Siemens Immulite 1000 |
| | ng/ml = µg/l | 25.1 | 18.8 | 31.4 | Beckman DXI standardised to Hybritech |
| | ng/ml = µg/l | 17.1 | 12.8 | 21.4 | Roche Elecsys |
| | ng/ml = µg/l | 13.9 | 10.4 | 17.4 | Diasorin Liaison |
| | ng/ml = µg/l | 25.7 | 19.3 | 32.1 | Beckman Access standardised to Hybritech |
| | ng/ml = µg/l | 16.6 | 12.5 | 20.8 | Tosoh Series |
| | ng/ml = µg/l | 17.3 | 13.0 | 21.6 | Roche Cobas E411 |
| | ng/ml = µg/l | 17.2 | 12.9 | 21.5 | Roche Cobas 6000/8000 |
| | ng/ml = µg/l | 25.3 | 19.0 | 31.6 | Beckman DxI800 standardised to WHO IRP96/670 |
| | ng/ml = µg/l | 29.0 | 21.8 | 36.3 | Beckman Access standardised to WHO IRP96/670 |
| | ng/ml = µg/l | 9.02 | 6.77 | 11.3 | Ortho Vitros 3600/5600/ECi PSA II |
| | ng/ml = µg/l | 18.5 | 13.9 | 23.1 | Fujirebio Lumipulse G Series |
| | ng/ml = µg/l | 12.9 | 9.68 | 16.1 | Diasorin Liaison XL |
| PSA Total | ng/ml = µg/l | 27.2 | 20.4 | 34.0 | Abbott Architect |
| | ng/ml = µg/l | 31.7 | 23.8 | 39.6 | BioMerieux Vidas |
| | ng/ml = µg/l | 31.4 | 23.6 | 39.3 | bioMerieux VIDAS TPSA |
| | ng/ml = µg/l | 31.2 | 23.4 | 39.0 | Siemens Centaur XP/XPT/Classic |
| | ng/ml = µg/l | 13.2 | 9.90 | 16.5 | Siemens Immulite 2000/2500 1st generation |
| | ng/ml = µg/l | 12.2 | 9.15 | 15.3 | Siemens Immulite 2000/2500 3rd generation |
| | ng/ml = µg/l | 13.6 | 10.2 | 17.0 | Siemens Immulite 1000 1st generation |
| | ng/ml = µg/l | 39.3 | 29.5 | 49.1 | Beckman DxI standardisd to Hybritech |
| | ng/ml = µg/l | 34.3 | 25.7 | 42.9 | Beckman DxI800 standardised to WHO IRP96/670 |
| | ng/ml = µg/l | 36.8 | 27.6 | 46.0 | Roche Elecsys |
| | ng/ml = µg/l | 19.2 | 14.4 | 24.0 | Diasorin Liaison |
| | ng/ml = µg/l | 40.0 | 30.0 | 50.0 | Beckman Access standardised to Hybritech |
| | ng/ml = µg/l | 40.0 | 30.0 | 50.0 | Beckman Access standardised to WHO IRP96/670 |
| | ng/ml = µg/l | 23.2 | 17.4 | 29.0 | Tosoh Series |
| | ng/ml = µg/l | 36.1 | 27.1 | 45.1 | Vitros ECi |
| | ng/ml = µg/l | 34.6 | 26.0 | 43.3 | CIS RIA Coated tube |
| | ng/ml = µg/l | 36.6 | 27.5 | 45.8 | Roche Cobas E411 |
| | ng/ml = µg/l | 36.4 | 27.3 | 45.5 | Roche Cobas 6000/8000 |
| | ng/ml = µg/l | 25.1 | 18.8 | 31.4 | Fujirebio Lumipulse G Series |
| | ng/ml = µg/l | 36.5 | 27.4 | 45.6 | Ortho Vitros 3600/5600/ECi PSA II |
| | ng/ml = µg/l | 32.2 | 24.2 | 40.2 | Siemens Centaur CP |
| | ng/ml = µg/l | 20.4 | 15.3 | 25.5 | Diasorin Liaison XL |
| Salicylic Acid | mmol/l | 2.73 | 2.18 | 3.28 | Roche Integra |
| | mg/dl | 37.7 | 30.1 | 45.3 | |
| | mmol/l | 2.90 | 2.32 | 3.48 | Abbott Architect |
| | mg/dl | 40.1 | 32.0 | 48.2 | |
| | mmol/l | 2.88 | 2.30 | 3.46 | Gravimetric |
| | mg/dl | 39.8 | 31.8 | 47.8 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| SHBG | nmol/l | 38.6 | 30.9 | 46.3 | Siemens Immulite 1000 |
| | nmol/l | 44.3 | 35.4 | 53.2 | Siemens Immulite 2000/2500 |
| | nmol/l | 45.6 | 36.5 | 54.7 | Roche Elecsys |
| | nmol/l | 42.6 | 34.1 | 51.1 | Abbott Architect |
| | nmol/l | 44.5 | 35.6 | 53.4 | Roche Cobas E411 |
| | nmol/l | 44.5 | 35.6 | 53.4 | Roche Cobas 6000/8000 |
| | nmol/l | 43.7 | 35.0 | 52.4 | Beckman Access |
| | nmol/l | 41.6 | 33.3 | 49.9 | Beckman DxI800 |
| T Uptake | %U | 38.7 | 31.0 | 46.4 | Siemens Immulite 2000 |
| Testosterone | nmol/l | 27.7 | 22.2 | 33.2 | Abbott Architect |
| | ng/ml | 7.98 | 6.39 | 9.57 | |
| | ng/dl | 798 | 639 | 957 | |
| | nmol/l | 22.3 | 17.8 | 26.8 | BioMerieux Vidas |
| | ng/ml | 6.42 | 5.13 | 7.71 | |
| | ng/dl | 642 | 513 | 771 | |
| | nmol/l | 23.8 | 17.4 | 30.2 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 6.85 | 5.00 | 8.70 | |
| | ng/dl | 685 | 500 | 870 | |
| | nmol/l | 32.9 | 26.3 | 39.5 | Siemens Immulite 2000/2500 |
| | ng/ml | 9.48 | 7.57 | 11.4 | |
| | ng/dl | 948 | 757 | 1139 | |
| | nmol/l | 47.3 | 37.8 | 56.8 | Siemens Immulite 1000 |
| | ng/ml | 13.6 | 10.9 | 16.3 | |
| | ng/dl | 1362 | 1089 | 1635 | |
| | nmol/l | 23.2 | 18.6 | 27.8 | Beckman DxI800 |
| | ng/ml | 6.68 | 5.36 | 8.00 | |
| | ng/dl | 668 | 536 | 800 | |
| | nmol/l | 25.9 | 20.7 | 31.1 | Beckman Access |
| | ng/ml | 7.46 | 5.96 | 8.96 | |
| | ng/dl | 746 | 596 | 896 | |
| | nmol/l | 40.1 | 32.1 | 48.1 | Tosoh Series |
| | ng/ml | 11.5 | 9.24 | 13.8 | |
| | ng/dl | 1155 | 924 | 1386 | |
| | nmol/l | 40.2 | 32.2 | 48.2 | Vitros ECi |
| | ng/ml | 11.6 | 9.27 | 13.9 | |
| | ng/dl | 1158 | 927 | 1389 | |
| | nmol/l | 28.6 | 22.9 | 34.3 | Roche Cobas 6000 Test 2 |
| | ng/ml | 8.24 | 6.60 | 9.88 | |
| | ng/dl | 824 | 660 | 988 | |
| | nmol/l | 28.5 | 22.8 | 34.2 | Roche Elecsys Test II |
| | ng/ml | 8.21 | 6.57 | 9.85 | |
| | ng/dl | 821 | 657 | 985 | |
| | nmol/l | 28.2 | 22.6 | 33.8 | Roche Cobas 4000/e411 Test II |
| | ng/ml | 8.12 | 6.51 | 9.73 | |
| | ng/dl | 812 | 651 | 973 | |

RANDOX

## IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Testosterone | nmol/l | 27.8 | 22.2 | 33.4 | Abbott Architect 2nd Generation |
| | ng/ml | 8.01 | 6.39 | 9.63 | |
| | ng/dl | 801 | 639 | 963 | |
| | nmol/l | 23.0 | 16.8 | 29.2 | Siemens Centaur CP |
| | ng/ml | 6.62 | 4.83 | 8.41 | |
| | ng/dl | 662 | 483 | 841 | |
| | nmol/l | 22.5 | 18.0 | 27.0 | BioMerieux Vidas Testosterone II |
| | ng/ml | 6.48 | 5.18 | 7.78 | |
| | ng/dl | 648 | 518 | 778 | |
| | nmol/l | 39.6 | 31.7 | 47.5 | Mindray CL-2000i |
| | ng/ml | 11.4 | 9.13 | 13.7 | |
| | ng/dl | 1140 | 913 | 1367 | |
| | nmol/l | 24.8 | 18.1 | 31.5 | Siemens Centaur TST II |
| | ng/ml | 7.14 | 5.21 | 9.07 | |
| | ng/dl | 714 | 521 | 907 | |
| | nmol/l | 12.0 | 9.60 | 14.4 | Diasorin Liaison XL |
| | ng/ml | 3.46 | 2.76 | 4.16 | |
| | ng/dl | 346 | 276 | 416 | |
| Theophylline | µmol/l | 148 | 118 | 178 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 26.7 | 21.4 | 32.0 | |
| | µmol/l | 165 | 132 | 198 | Roche Integra |
| | µg/ml | 29.7 | 23.8 | 35.6 | |
| | µmol/l | 206 | 165 | 247 | Vitros |
| | µg/ml | 37.1 | 29.7 | 44.5 | |
| | µmol/l | 144 | 115 | 173 | Abbott Architect |
| | µg/ml | 25.9 | 20.7 | 31.1 | |
| | µmol/l | 157 | 126 | 188 | Roche Cobas 6000/8000 |
| | µg/ml | 28.3 | 22.7 | 33.9 | |
| | µmol/l | 158 | 126 | 190 | Beckman DxC |
| | µg/ml | 28.5 | 22.7 | 34.3 | |
| | µmol/l | 145 | 116 | 174 | Beckman AU400/600/640/2700/5400 |
| | µg/ml | 26.1 | 20.9 | 31.3 | |
| | µmol/l | 166 | 133 | 199 | Gravimetric |
| | µg/ml | 29.9 | 24.0 | 35.9 | |
| Thyroglobulin | ng/ml | 22.3 | 16.7 | 27.9 | Siemens Immulite 1000 |
| | ng/ml | 26.5 | 19.9 | 33.1 | Siemens Immulite 2000 |
| | ng/ml | 59.3 | 44.5 | 74.1 | Roche Elecsys |
| | ng/ml | 50.1 | 37.6 | 62.6 | Beckman DxI800 |
| | ng/ml | 58.1 | 43.6 | 72.6 | Roche Cobas E411 |
| | ng/ml | 57.6 | 43.2 | 72.0 | Roche Cobas 6000/8000 |
| | ng/ml | 52.4 | 39.3 | 65.5 | Beckman Access |
| | ng/ml | 57.8 | 43.4 | 72.3 | Abbott Architect 2000i |
| | ng/ml | 53.2 | 39.9 | 66.5 | Tosoh Series |
| | ng/ml | 57.3 | 43.0 | 71.6 | Roche Cobas 6000 TGII |
| | ng/ml | 55.3 | 41.5 | 69.1 | Roche Elecsys TGII |
| | ng/ml | 57.9 | 43.4 | 72.4 | Roche Cobas 4000/E411 TGII |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Thyroglobulin | ng/ml | 27.3 | 20.5 | 34.1 | Diasorin Liaison XL |
| Thyroid Stimulating Hormone | µU/ml = mIU/l | 17.5 | 14.0 | 21.0 | Abbott Architect |
| | µU/ml = mIU/l | 21.5 | 17.2 | 25.8 | bioMerieux VIDAS TSH |
| | µU/ml = mIU/l | 20.9 | 16.7 | 25.1 | bioMerieux VIDAS TSH3 Ultrasensitive |
| | µU/ml = mIU/l | 22.5 | 15.3 | 29.7 | Siemens Centaur XP/XPT/Classic |
| | µU/ml = mIU/l | 22.4 | 17.9 | 26.9 | CIS IRMA |
| | µU/ml = mIU/l | 21.8 | 14.8 | 28.8 | Siemens Centaur XP/XPT/Classic 3rd Generation |
| | µU/ml = mIU/l | 20.5 | 16.4 | 24.6 | Siemens Dimension |
| | µU/ml = mIU/l | 21.6 | 17.3 | 25.9 | Siemens Immulite 2000/2500 |
| | µU/ml = mIU/l | 22.0 | 17.6 | 26.4 | Siemens Immulite 1000 |
| | µU/ml = mIU/l | 19.4 | 15.5 | 23.3 | Beckman DxI800 Fast TSH |
| | µU/ml = mIU/l | 19.0 | 15.2 | 22.8 | Beckman DxI800 |
| | µU/ml = mIU/l | 20.3 | 16.2 | 24.4 | Roche Elecsys |
| | µU/ml = mIU/l | 25.9 | 20.7 | 31.1 | Diasorin Liaison |
| | µU/ml = mIU/l | 18.8 | 15.0 | 22.6 | Beckman Access Fast TSH |
| | µU/ml = mIU/l | 19.4 | 15.5 | 23.3 | Beckman Access hyperTSH 3rd Generation |
| | µU/ml = mIU/l | 22.5 | 18.0 | 27.0 | Tosoh Series |
| | µU/ml = mIU/l | 28.5 | 22.8 | 34.2 | Vitros ECi |
| | µU/ml = mIU/l | 20.6 | 16.5 | 24.7 | Roche Cobas E411 |
| | µU/ml = mIU/l | 20.7 | 16.6 | 24.8 | Roche Cobas 6000/8000 |
| | µU/ml = mIU/l | 18.7 | 15.0 | 22.4 | Beckman DxI800 Hyper TSH |
| | µU/ml = mIU/l | 22.6 | 15.4 | 29.8 | Siemens Centaur XP/XPT/Classic TSH3-Ultra |
| | µU/ml = mIU/l | 21.3 | 14.5 | 28.1 | Siemens Centaur CP |
| | µU/ml = mIU/l | 22.7 | 15.4 | 30.0 | Siemens Centaur CP TSH3-Ultra |
| | µU/ml = mIU/l | 25.9 | 20.7 | 31.1 | Mindray CL-2000i |
| | µU/ml = mIU/l | 19.0 | 15.2 | 22.8 | Beckman DxI 600/800 Access (3rd IS) |
| | µU/ml = mIU/l | 26.4 | 21.1 | 31.7 | Diasorin Liaison XL |
| Tobramycin | µmol/l | 10.3 | 8.24 | 12.4 | Gravimetric |
| | µg/ml | 4.82 | 3.86 | 5.80 | |
| Total Beta hCG | mU/ml=IU/l | 159 | 127 | 191 | Abbott Architect |
| | IU/ml | 0.159 | 0.127 | 0.191 | |
| | mU/ml=IU/l | 692 | 554 | 830 | BioMerieux Vidas |
| | IU/ml | 0.692 | 0.554 | 0.830 | |
| | mU/ml=IU/l | 118 | 70.8 | 165 | Siemens Centaur XP/XPT/Classic |
| | IU/ml | 0.118 | 0.071 | 0.165 | |
| | mU/ml=IU/l | 783 | 626 | 940 | Siemens Dimension |
| | IU/ml | 0.783 | 0.626 | 0.940 | |
| | mU/ml=IU/l | 1076 | 861 | 1291 | Siemens Immulite 2000 |
| | IU/ml | 1.08 | 0.861 | 1.30 | |
| | mU/ml=IU/l | 950 | 760 | 1140 | Siemens Immulite 1000 |
| | IU/ml | 0.950 | 0.760 | 1.14 | |
| | mU/ml=IU/l | 146 | 117 | 175 | Beckman DxI800 |
| | IU/ml | 0.146 | 0.117 | 0.175 | |
| | mU/ml=IU/l | 158 | 126 | 190 | Diasorin Liaison |
| | IU/ml | 0.158 | 0.126 | 0.190 | |
| | mU/ml=IU/l | 358 | 286 | 430 | Roche Cobas Core EIA |
| | IU/ml | 0.358 | 0.286 | 0.430 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Total Beta hCG | mU/ml=IU/l | 135 | 108 | 162 | Beckman Access |
| | IU/ml | 0.135 | 0.108 | 0.162 | |
| | mU/ml=IU/l | 687 | 550 | 824 | Tosoh Series |
| | IU/ml | 0.687 | 0.550 | 0.824 | |
| | mU/ml=IU/l | 733 | 586 | 880 | Vitros ECi |
| | IU/ml | 0.733 | 0.586 | 0.880 | |
| | mU/ml=IU/l | 248 | 198 | 298 | Roche STAT (Intact) |
| | IU/ml | 0.248 | 0.198 | 0.298 | |
| | mU/ml=IU/l | 361 | 289 | 433 | Roche hCG+Beta |
| | IU/ml | 0.361 | 0.289 | 0.433 | |
| | mU/ml=IU/l | 129 | 103 | 155 | Fujirebio Lumipulse G Series |
| | IU/ml | 0.129 | 0.103 | 0.155 | |
| | mU/ml=IU/l | 141 | 113 | 169 | Beckman Access Total BhCG (5th IS) |
| | IU/ml | 0.141 | 0.113 | 0.169 | |
| | mU/ml=IU/l | 146 | 117 | 175 | Beckman DxI Total BhCG (5th IS) |
| | IU/ml | 0.146 | 0.117 | 0.175 | |
| | mU/ml=IU/l | 118 | 70.8 | 165 | Siemens Centaur CP |
| | IU/ml | 0.118 | 0.071 | 0.165 | |
| | mU/ml=IU/l | 168 | 134 | 202 | Diasorin Liaison XL |
| | IU/ml | 0.168 | 0.134 | 0.202 | |
| Total T3 | nmol/l | 5.23 | 3.92 | 6.54 | Abbott Architect |
| | ng/ml | 3.40 | 2.55 | 4.25 | |
| | ng/dl | 340 | 255 | 425 | |
| | nmol/l | 6.04 | 4.53 | 7.55 | BioMerieux Vidas |
| | ng/ml | 3.93 | 2.95 | 4.91 | |
| | ng/dl | 393 | 295 | 491 | |
| | nmol/l | 7.09 | 5.32 | 8.86 | Siemens Centaur XP/XPT/Classic |
| | ng/ml | 4.62 | 3.47 | 5.77 | |
| | ng/dl | 462 | 347 | 577 | |
| | nmol/l | 6.75 | 5.06 | 8.44 | Siemens Immulite 2000/2500 |
| | ng/ml | 4.39 | 3.29 | 5.49 | |
| | ng/dl | 439 | 329 | 549 | |
| | nmol/l | 6.95 | 5.21 | 8.69 | Siemens Immulite 1000 |
| | ng/ml | 4.52 | 3.39 | 5.65 | |
| | ng/dl | 452 | 339 | 565 | |
| | nmol/l | 5.94 | 4.46 | 7.43 | Beckman DxI800 |
| | ng/ml | 3.87 | 2.90 | 4.84 | |
| | ng/dl | 387 | 290 | 484 | |
| | nmol/l | 7.02 | 5.27 | 8.78 | Roche Elecsys |
| | ng/ml | 4.57 | 3.43 | 5.71 | |
| | ng/dl | 457 | 343 | 571 | |
| | nmol/l | 6.09 | 4.57 | 7.61 | Beckman Access |
| | ng/ml | 3.96 | 2.98 | 4.94 | |
| | ng/dl | 396 | 298 | 494 | |
| | nmol/l | 6.23 | 4.67 | 7.79 | Tosoh Series |
| | ng/ml | 4.06 | 3.04 | 5.08 | |
| | ng/dl | 406 | 304 | 508 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Total T3 | nmol/l | 7.20 | 5.40 | 9.00 | Vitros ECi |
| | ng/ml | 4.69 | 3.52 | 5.86 | |
| | ng/dl | 469 | 352 | 586 | |
| | nmol/l | 4.99 | 3.74 | 6.24 | CIS RIA Coated tube |
| | ng/ml | 3.25 | 2.43 | 4.07 | |
| | ng/dl | 325 | 243 | 407 | |
| | nmol/l | 6.90 | 5.18 | 8.63 | Roche Cobas E411 |
| | ng/ml | 4.49 | 3.37 | 5.61 | |
| | ng/dl | 449 | 337 | 561 | |
| | nmol/l | 6.42 | 4.82 | 8.03 | Roche Cobas 6000/8000 |
| | ng/ml | 4.18 | 3.14 | 5.22 | |
| | ng/dl | 418 | 314 | 522 | |
| | nmol/l | 6.07 | 4.55 | 7.59 | ELISA |
| | ng/ml | 3.95 | 2.96 | 4.94 | |
| | ng/dl | 395 | 296 | 494 | |
| | nmol/l | 7.67 | 5.75 | 9.59 | Siemens Centaur CP |
| | ng/ml | 4.99 | 3.74 | 6.24 | |
| | ng/dl | 499 | 374 | 624 | |
| | nmol/l | 4.99 | 3.74 | 6.24 | Diasorin Liaison XL |
| | ng/ml | 3.25 | 2.43 | 4.07 | |
| | ng/dl | 325 | 243 | 407 | |
| Total T4 | nmol/l | 169 | 127 | 211 | Abbott Architect |
| | µg/dl | 13.2 | 9.91 | 16.5 | |
| | ng/ml | 132 | 99.1 | 165 | |
| | nmol/l | 201 | 151 | 251 | BioMerieux Vidas |
| | µg/dl | 15.7 | 11.8 | 19.6 | |
| | ng/ml | 157 | 118 | 196 | |
| | nmol/l | 189 | 132 | 246 | Siemens Centaur XP/XPT/Classic |
| | µg/dl | 14.7 | 10.3 | 19.1 | |
| | ng/ml | 147 | 103 | 191 | |
| | nmol/l | 178 | 134 | 223 | Siemens Immulite 2000/2500 |
| | µg/dl | 13.9 | 10.5 | 17.3 | |
| | ng/ml | 139 | 105 | 173 | |
| | nmol/l | 179 | 134 | 224 | Siemens Immulite 1000 |
| | µg/dl | 14.0 | 10.5 | 17.5 | |
| | ng/ml | 140 | 105 | 175 | |
| | nmol/l | 179 | 134 | 224 | Beckman DxI800 |
| | µg/dl | 14.0 | 10.5 | 17.5 | |
| | ng/ml | 140 | 105 | 175 | |
| | nmol/l | 168 | 126 | 210 | Roche Elecsys |
| | µg/dl | 13.1 | 9.83 | 16.4 | |
| | ng/ml | 131 | 98.3 | 164 | |
| | nmol/l | 182 | 137 | 228 | Beckman Access |
| | µg/dl | 14.2 | 10.7 | 17.7 | |
| | ng/ml | 142 | 107 | 177 | |

RANDOX

# IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Total T4 | nmol/l | 166 | 125 | 208 | Tosoh Series |
| | µg/dl | 12.9 | 9.75 | 16.1 | |
| | ng/ml | 129 | 97.5 | 161 | |
| | nmol/l | 180 | 135 | 225 | Vitros ECi |
| | µg/dl | 14.0 | 10.5 | 17.5 | |
| | ng/ml | 140 | 105 | 175 | |
| | nmol/l | 152 | 114 | 190 | MP Biomedicals RIA |
| | µg/dl | 11.9 | 8.89 | 14.9 | |
| | ng/ml | 119 | 88.9 | 149 | |
| | nmol/l | 193 | 145 | 241 | CIS RIA Coated tube |
| | µg/dl | 15.1 | 11.3 | 18.9 | |
| | ng/ml | 151 | 113 | 189 | |
| | nmol/l | 167 | 125 | 209 | Roche Cobas E411 |
| | µg/dl | 13.0 | 9.75 | 16.3 | |
| | ng/ml | 130 | 97.5 | 163 | |
| | nmol/l | 167 | 125 | 209 | Roche Cobas 6000/8000 |
| | µg/dl | 13.0 | 9.75 | 16.3 | |
| | ng/ml | 130 | 97.5 | 163 | |
| | nmol/l | 128 | 96.0 | 160 | Immunotech IRMA |
| | µg/dl | 9.98 | 7.49 | 12.5 | |
| | ng/ml | 100 | 74.9 | 125 | |
| | nmol/l | 177 | 133 | 221 | ELISA |
| | µg/dl | 13.8 | 10.4 | 17.2 | |
| | ng/ml | 138 | 104 | 172 | |
| | nmol/l | 251 | 188 | 314 | Boditech Med Inc i-CHROMA |
| | µg/dl | 19.6 | 14.7 | 24.5 | |
| | ng/ml | 196 | 147 | 245 | |
| | nmol/l | 190 | 133 | 247 | Siemens Centaur CP |
| | µg/dl | 14.8 | 10.4 | 19.2 | |
| | ng/ml | 148 | 104 | 192 | |
| | nmol/l | 137 | 103 | 171 | Diasorin Liaison XL |
| | µg/dl | 10.7 | 8.03 | 13.4 | |
| | ng/ml | 107 | 80.3 | 134 | |
| Valproic Acid | µmol/l | 925 | 740 | 1110 | Abbott Architect |
| | µg/ml | 133 | 107 | 159 | |
| | µmol/l | 978 | 782 | 1174 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 141 | 113 | 169 | |
| | µmol/l | 913 | 730 | 1096 | Siemens Dimension |
| | µg/ml | 132 | 105 | 159 | |
| | µmol/l | 987 | 790 | 1184 | Siemens Immulite 2000/2500 |
| | µg/ml | 142 | 114 | 170 | |
| | µmol/l | 1001 | 801 | 1201 | Siemens Immulite 1000 |
| | µg/ml | 144 | 116 | 172 | |
| | µmol/l | 914 | 731 | 1097 | Roche Integra |
| | µg/ml | 132 | 105 | 159 | |

RANDOX

## IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Valproic Acid | µmol/l | 997 | 798 | 1196 | Roche Cobas E411 |
| | µg/ml | 144 | 115 | 173 | |
| | µmol/l | 948 | 758 | 1138 | Roche Cobas 6000/8000 |
| | µg/ml | 137 | 109 | 165 | |
| | µmol/l | 869 | 695 | 1043 | Beckman DxC |
| | µg/ml | 125 | 100 | 150 | |
| | µmol/l | 946 | 757 | 1135 | Beckman AU400/600/640/2700/5400 |
| | µg/ml | 137 | 109 | 165 | |
| | µmol/l | 1069 | 855 | 1283 | Siemens ADVIA 1200/1650/1800/2400 |
| | µg/ml | 154 | 123 | 185 | |
| | µmol/l | 1116 | 893 | 1339 | Gravimetric |
| | µg/ml | 161 | 129 | 193 | |
| Vancomycin | µmol/l | 11.1 | 8.88 | 13.3 | Roche Integra |
| | µg/ml | 16.5 | 13.2 | 19.8 | |
| | µmol/l | 9.36 | 7.49 | 11.2 | Ortho Vitros Microslide Systems |
| | µg/ml | 13.9 | 11.1 | 16.7 | |
| | µmol/l | 10.9 | 8.72 | 13.1 | Abbott Architect |
| | µg/ml | 16.2 | 13.0 | 19.4 | |
| | µmol/l | 8.98 | 7.18 | 10.8 | Siemens Centaur XP/XPT/Classic |
| | µg/ml | 13.3 | 10.6 | 16.0 | |
| | µmol/l | 9.94 | 7.95 | 11.9 | Siemens Dimension |
| | µg/ml | 14.8 | 11.8 | 17.8 | |
| | µmol/l | 9.91 | 7.93 | 11.9 | Roche Cobas 6000/8000 |
| | µg/ml | 14.7 | 11.8 | 17.6 | |
| | µmol/l | 9.89 | 7.91 | 11.9 | Beckman DxC |
| | µg/ml | 14.7 | 11.8 | 17.6 | |
| | µmol/l | 10.4 | 8.32 | 12.5 | Thermo Scientific QMS Vancomycin |
| | µg/ml | 15.5 | 12.4 | 18.6 | |
| | µmol/l | 10.8 | 8.64 | 13.0 | Gravimetric |
| | µg/ml | 16.0 | 12.8 | 19.3 | |
| Vitamin B12 | pmol/l | 710 | 568 | 852 | Abbott Architect |
| | pg/ml | 962 | 770 | 1154 | |
| | pmol/l | 852 | 639 | 1065 | Siemens Centaur XP/XPT/Classic |
| | pg/ml | 1154 | 866 | 1442 | |
| | pmol/l | 647 | 518 | 776 | Siemens Immulite 2000 |
| | pg/ml | 877 | 702 | 1052 | |
| | pmol/l | 643 | 514 | 772 | Beckman DxI800 |
| | pg/ml | 871 | 696 | 1046 | |
| | pmol/l | 747 | 598 | 896 | Roche Elecsys |
| | pg/ml | 1012 | 810 | 1214 | |
| | pmol/l | 659 | 527 | 791 | Beckman Access |
| | pg/ml | 893 | 714 | 1072 | |
| | pmol/l | 866 | 693 | 1039 | Tosoh Series |
| | pg/ml | 1173 | 939 | 1407 | |
| | pmol/l | 632 | 506 | 758 | Vitros ECi |
| | pg/ml | 856 | 686 | 1026 | |

RANDOX

## IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

**Cat. No. IA3111/IA3112 Lot. No. 1942EC Size 12 x 5ml / 4 x 5ml Expiry 2022-12-28**

| | | | Range | | |
|---|---|---|---|---|---|
| **Analyte** | **unit** | **Target** | **low** | **high** | **methods** |
| Vitamin B12 | pmol/l | 793 | 634 | 952 | MP Biomedicals RIA |
| | pg/ml | 1075 | 859 | 1291 | |
| | pmol/l | 711 | 569 | 853 | Siemens Dimension |
| | pg/ml | 963 | 771 | 1155 | |
| | pmol/l | 848 | 636 | 1060 | Siemens Centaur CP |
| | pg/ml | 1149 | 862 | 1436 | |