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

Cat. No. IA3109 / IA3112

Lot No. 1476EC

Size: 12 x 5 ml / 12 x 5 ml

Expiry: 2017-10

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 when frozen once at –20°C. C-Peptide is stable for 1 day at +2°C to +8°C. Parathyroid Hormone (PTH) and 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 assayed within 4 hours of reconstitution when stored at +2°C to +8°C. 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 1: 12 x 5 ml Tri-Level: 12 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 and 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.

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

01 Sep '15 ne

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
17-OH-Progesterone	nmol/l	2.41	1.81	3.01	Immunotech RIA
	ng/ml	0.798	0.599	0.997	
	nmol/l	2.91	2.18	3.64	DRG ELISA
	ng/ml	0.963	0.722	1.20	
	nmol/l	3.33	2.50	4.16	DIAsource RIA
	ng/ml	1.10	0.828	1.37	
	nmol/l	1.57	1.18	1.96	MP Biomedicals RIA
	ng/ml	0.520	0.391	0.649	
25-OH Vitamin D	nmol/l	36.2	27.2	45.3	Diasorin Liaison
	nmol/l	9.74	6.82	12.7	Roche Cobas 6000/8000
	nmol/l	16.1	12.1	20.1	Abbott Architect
	nmol/l	26.2	19.7	32.8	Tosoh AIA360
	nmol/l	24.1	18.1	30.1	BioMerieux Vidas
	nmol/l	27.0	20.3	33.8	Beckman DxI 600/800
	nmol/l	12.3	9.23	15.4	Fujirebio Lumipulse G
ACTH	pmol/l	2.13	1.60	2.66	Siemens Immulite 2000/2500
	pg/ml	9.68	7.27	12.1	
	pmol/l	2.14	1.61	2.68	Roche Cobas E411
	pg/ml	9.73	7.32	12.1	
	pmol/l	1.98	1.49	2.48	Roche Cobas 6000/8000
	pg/ml	9.00	6.77	11.2	
	pmol/l	2.81	2.11	3.51	Siemens Immulite 1000
	pg/ml	12.8	9.59	16.0	
	pmol/l	2.11	1.58	2.64	Roche Modular E170
	pg/ml	9.59	7.18	12.0	
Alphafoetoprotein	KIU/l = IU/ml	10.3	8.24	12.4	Abbott Architect
	ng/ml	12.5	9.97	15.0	
	KIU/l = IU/ml	10.1	8.08	12.1	BioMerieux Vidas
	ng/ml	12.2	9.78	14.6	
	KIU/l = IU/ml	11.8	9.32	14.3	Siemens Centaur XP/XPT/Classic
	ng/ml	14.3	11.3	17.3	
	KIU/l = IU/ml	10.0	8.00	12.0	Siemens Immulite 2000/2500
	ng/ml	12.1	9.68	14.5	
	KIU/l = IU/ml	11.1	8.88	13.3	Siemens Immulite 1000
	ng/ml	13.4	10.7	16.1	
	KIU/l = IU/ml	10.7	8.56	12.8	Beckman DxI800
	ng/ml	12.9	10.4	15.4	
	KIU/l = IU/ml	11.4	9.12	13.7	Roche Elecsys
	ng/ml	13.8	11.0	16.6	
	KIU/l = IU/ml	12.4	9.92	14.9	Diasorin Liaison
	ng/ml	15.0	12.0	18.0	
	KIU/l = IU/ml	11.6	9.28	13.9	Roche Modular E170
	ng/ml	14.0	11.2	16.8	

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Alphafoetoprotein	KIU/l = IU/ml	10.1	8.08	12.1	Beckman Access
	ng/ml	12.2	9.78	14.6	
	KIU/l = IU/ml	10.9	8.72	13.1	Tosoh AIA360
	ng/ml	13.2	10.6	15.8	
	KIU/l = IU/ml	10.8	8.64	13.0	Vitros ECi
	ng/ml	13.1	10.5	15.7	
	KIU/l = IU/ml	13.0	10.4	15.6	Brahms Kryptor
	ng/ml	15.7	12.6	18.8	
	KIU/l = IU/ml	11.7	9.36	14.0	Roche Cobas 6000/8000
	ng/ml	14.2	11.3	17.1	
	KIU/l = IU/ml	21.1	16.9	25.3	CIS IRMA
	ng/ml	25.5	20.4	30.6	
	KIU/l = IU/ml	11.5	9.20	13.8	Roche Cobas E411
	ng/ml	13.9	11.1	16.7	
	KIU/l = IU/ml	11.4	9.12	13.7	Siemens Dimension
	ng/ml	13.8	11.0	16.6	
Amikacin	µmol/l	6.75	5.40	8.10	Roche Integra
	µg/ml	3.95	3.16	4.74	
	µmol/l	6.49	5.19	7.79	Roche Cobas 6000/8000
	µg/ml	3.80	3.04	4.56	
	µmol/l	6.40	5.12	7.68	Gravimetric
	µg/ml	3.75	3.00	4.50	
Androstenedione	nmol/l	9.43	7.07	11.8	Siemens Immulite 2000
	ng/ml	2.71	2.03	3.39	
Beta-2-microglobulin	µg/ml = mg/l	1.48	1.18	1.78	Abbott Architect
	µg/ml = mg/l	1.53	1.22	1.84	BioMerieux Vidas
	µg/ml = mg/l	1.34	1.07	1.61	Behring Nephelometer
	µg/ml = mg/l	1.38	1.10	1.66	Roche Tinaquant
	µg/ml = mg/l	1.31	1.05	1.57	Siemens Immulite 2000/2500
	µg/ml = mg/l	1.43	1.14	1.72	Siemens Immulite 1000
	µg/ml = mg/l	1.19	0.952	1.43	Diasorin Liaison
	µg/ml = mg/l	1.29	1.03	1.55	Tosoh AIA360
	µg/ml = mg/l	1.50	1.20	1.80	Immunotech RIA
	µg/ml = mg/l	1.31	1.05	1.57	Roche Cobas E411
	µg/ml = mg/l	1.40	1.12	1.68	Roche Cobas 6000/8000
	µg/ml = mg/l	1.43	1.14	1.72	Roche Modular E170
	µg/ml = mg/l	1.36	1.09	1.63	Siemens Dimension
C-Peptide	nmol/l	0.349	0.262	0.436	Siemens Immulite 2000/2500
	ng/ml	1.05	0.791	1.31	
	nmol/l	0.492	0.369	0.615	Roche Elecsys
	ng/ml	1.49	1.11	1.87	
	nmol/l	0.526	0.395	0.658	Roche Cobas 6000/8000
	ng/ml	1.59	1.19	1.99	
	nmol/l	0.326	0.245	0.408	Siemens Immulite 1000
	ng/ml	0.984	0.740	1.23	

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
C-Peptide	nmol/l	0.577	0.433	0.721	Diasorin Liaison
	ng/ml	1.74	1.31	2.17	
	nmol/l	0.517	0.388	0.646	Roche Cobas E411
	ng/ml	1.56	1.17	1.95	
	nmol/l	0.517	0.388	0.646	Roche Modular E170
	ng/ml	1.56	1.17	1.95	
	nmol/l	0.392	0.294	0.490	Abbott Architect
	ng/ml	1.18	0.888	1.47	
	nmol/l	0.358	0.251	0.465	Siemens Centaur XP/XPT/Classic
	ng/ml	1.08	0.756	1.40	
	nmol/l	0.388	0.291	0.485	Monobind Inc. ELISA / CLIA
	ng/ml	1.17	0.879	1.46	
	nmol/l	0.232	0.174	0.290	Tosoh AIA360
	ng/ml	0.700	0.525	0.875	
CA 15-3	U/ml	19.1	15.3	22.9	Abbott AXSYM
	U/ml	20.7	16.6	24.8	Abbott Architect
	U/ml	19.1	15.3	22.9	BioMerieux Vidas
	U/ml	20.5	13.5	27.5	Siemens Centaur XP/XPT/Classic
	U/ml	20.0	16.0	24.0	Siemens Immulite 2000/2500
	U/ml	21.7	17.4	26.0	Siemens Immulite 1000
	U/ml	9.61	7.69	11.5	Beckman DxI800
	U/ml	18.2	14.6	21.8	Roche Elecsys
	U/ml	20.4	16.3	24.5	Diasorin Liaison
	U/ml	19.0	15.2	22.8	Roche Modular E170
	U/ml	9.72	7.78	11.7	Beckman Access
	U/ml	22.1	17.7	26.5	Tosoh AIA360
	U/ml	16.5	13.2	19.8	Vitros ECi
	U/ml	18.8	15.0	22.6	Roche Cobas 6000/8000
	U/ml	18.4	14.7	22.1	Roche Cobas E411
CA 19-9	U/ml	25.2	20.2	30.2	Abbott AXSYM
	U/ml	74.4	59.5	89.3	Abbott Architect
	U/ml	27.6	22.1	33.1	BioMerieux Vidas
	U/ml	24.5	16.2	32.8	Siemens Centaur XP/XPT/Classic
	U/ml	15.9	12.7	19.1	Siemens Immulite 2000/2500
	U/ml	17.2	13.8	20.6	Siemens Immulite 1000
	U/ml	19.2	15.4	23.0	Beckman DxI800
	U/ml	20.0	16.0	24.0	Roche Elecsys
	U/ml	31.3	25.0	37.6	Diasorin Liaison
	U/ml	20.5	16.4	24.6	Roche Modular E170
	U/ml	20.3	16.2	24.4	Beckman Access
	U/ml	16.7	13.4	20.0	Tosoh AIA360
	U/ml	39.1	31.3	46.9	Vitros ECi
	U/ml	73.8	59.0	88.6	Abbott Architect XR kit
	U/ml	20.3	16.2	24.4	Roche Cobas 6000/8000
	U/ml	20.0	16.0	24.0	Roche Cobas E411
CA125	U/ml	50.4	40.3	60.5	Abbott Architect

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
CA125	U/ml	34.0	27.2	40.8	BioMerieux Vidas
	U/ml	35.2	23.2	47.2	Siemens Centaur XP/XPT/Classic OV Kit
	U/ml	36.2	23.9	48.5	Siemens Centaur XP/XPT/Classic CA125 II kit
	U/ml	31.6	25.3	37.9	Siemens Immulite 2000/2500
	U/ml	36.6	29.3	43.9	Siemens Immulite 1000
	U/ml	26.3	21.0	31.6	Beckman DxI800
	U/ml	30.4	24.3	36.5	Roche Elecsys
	U/ml	41.8	33.4	50.2	Diasorin Liaison
	U/ml	30.5	24.4	36.6	Roche Modular E170
	U/ml	26.1	20.9	31.3	Beckman Access
	U/ml	70.9	56.7	85.1	Tosoh AIA360
	U/ml	31.1	24.9	37.3	Vitros ECi
	U/ml	30.8	24.6	37.0	Roche Cobas E411
	U/ml	30.2	24.2	36.2	Roche Cobas 6000/8000
	U/ml	33.8	22.3	45.3	Siemens Centaur CP CA125 II kit
Carbamazepine	µmol/l	14.6	11.7	17.5	Abbott AXSYM
	µg/ml	3.45	2.77	4.13	
	µmol/l	15.5	12.4	18.6	Abbott Architect
	µg/ml	3.66	2.93	4.39	
	µmol/l	17.1	13.7	20.5	Behring Emit
	µg/ml	4.04	3.24	4.84	
	µmol/l	17.4	12.5	22.3	Siemens Centaur XP/XPT/Classic
	µg/ml	4.11	2.96	5.26	
	µmol/l	14.6	11.7	17.5	Siemens Dimension
	µg/ml	3.45	2.77	4.13	
	µmol/l	12.3	9.84	14.8	Siemens Immulite 2000/2500
	µg/ml	2.91	2.33	3.49	
	µmol/l	13.8	11.0	16.6	Siemens Immulite 1000
	µg/ml	3.26	2.60	3.92	
	µmol/l	17.7	14.2	21.2	HPLC
	µg/ml	4.18	3.36	5.00	
	µmol/l	16.0	12.8	19.2	Roche Integra
	µg/ml	3.78	3.03	4.53	
	µmol/l	13.9	11.1	16.7	Roche Cobas E411
	µg/ml	3.29	2.62	3.96	
	µmol/l	14.5	11.6	17.4	Roche Cobas 6000/8000
	µg/ml	3.43	2.74	4.12	
	µmol/l	14.0	11.2	16.8	Roche Modular
	µg/ml	3.31	2.65	3.97	
	µmol/l	13.7	11.0	16.4	Beckman DxC
	µg/ml	3.24	2.60	3.88	
	µmol/l	15.4	12.3	18.4	Gravimetric
	µg/ml	3.63	2.91	4.35	
Carcinoembryonic Antigen (CEA)	ng/ml = µg/l	4.50	3.60	5.40	Abbott AXSYM
	ng/ml = µg/l	4.62	3.70	5.54	Abbott Architect
	ng/ml = µg/l	3.59	2.87	4.31	BioMerieux Vidas

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Carcinoembryonic Antigen (CEA)	ng/ml = µg/l	3.95	2.61	5.29	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	3.89	3.11	4.67	CIS RIA Coated tube
	ng/ml = µg/l	4.54	3.63	5.45	Siemens Immulite 2000/2500
	ng/ml = µg/l	4.53	3.62	5.44	Siemens Immulite 1000
	ng/ml = µg/l	3.96	3.17	4.75	Beckman DxI800
	ng/ml = µg/l	3.88	3.10	4.66	Roche Elecsys
	ng/ml = µg/l	4.14	3.31	4.97	Diasorin Liaison
	ng/ml = µg/l	3.78	3.02	4.54	Roche Modular E170
	ng/ml = µg/l	3.99	3.19	4.79	Beckman Access
	ng/ml = µg/l	5.75	4.60	6.90	Tosoh AIA360
	ng/ml = µg/l	4.94	3.95	5.93	Vitros ECi
	ng/ml = µg/l	3.79	3.03	4.55	Roche Cobas 6000/8000
	ng/ml = µg/l	3.17	2.54	3.80	Immunotech IRMA
	ng/ml = µg/l	3.89	3.11	4.67	Roche Cobas E411
	ng/ml = µg/l	3.21	2.57	3.85	Boditech Med Inc i-CHROMA
Cortisol	nmol/l	183	137	229	Abbott AXSYM
	µg/dl	6.59	4.93	8.25	
	nmol/l	195	146	244	Abbott Architect
	µg/dl	7.02	5.26	8.78	
	nmol/l	138	104	173	BioMerieux Vidas
	µg/dl	4.97	3.74	6.20	
	nmol/l	198	131	265	Siemens Centaur XP/XPT/Classic
	µg/dl	7.13	4.71	9.55	
	nmol/l	162	122	203	CIS RIA
	µg/dl	5.83	4.39	7.27	
	nmol/l	195	146	244	Siemens Immulite 2000/2500
	µg/dl	7.02	5.26	8.78	
	nmol/l	187	140	234	Siemens Coat-a-Count
	µg/dl	6.73	5.04	8.42	
	nmol/l	196	147	245	Siemens Immulite 1000
	µg/dl	7.06	5.29	8.83	
	nmol/l	193	145	241	Beckman DxI800
	µg/dl	6.95	5.22	8.68	
	nmol/l	178	134	223	Roche Elecsys
	µg/dl	6.41	4.82	8.00	
	nmol/l	270	203	338	Diasorin Liaison
	µg/dl	9.72	7.31	12.1	
	nmol/l	174	131	218	Roche Modular E170
	µg/dl	6.26	4.72	7.80	
	nmol/l	189	142	236	Beckman Access
	µg/dl	6.80	5.11	8.49	
	nmol/l	173	130	216	Tosoh AIA360
	µg/dl	6.23	4.68	7.78	
	nmol/l	137	103	171	Vitros ECi
	µg/dl	4.93	3.71	6.15	
	nmol/l	175	131	219	Roche Cobas 6000/8000
	µg/dl	6.30	4.72	7.88	

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Cortisol	nmol/l	176	132	220	Roche Cobas E411
	µg/dl	6.34	4.75	7.93	
	nmol/l	601	451	751	Boditech Med Inc i-CHROMA
	µg/dl	21.6	16.2	27.0	
DHEA-S	µmol/l	2.43	1.94	2.92	Abbott Architect
	µmol/l	1.89	1.51	2.27	Siemens Immulite 2000/2500
	µmol/l	1.79	1.43	2.15	Siemens Immulite 1000
	µmol/l	2.27	1.82	2.72	Beckman DxI800
	µmol/l	2.93	2.34	3.52	Roche Elecsys
	µmol/l	2.87	2.30	3.44	Roche Modular E170
	µmol/l	2.47	1.98	2.96	Beckman Access
	µmol/l	1.76	1.41	2.11	Diasorin Liaison
	µmol/l	2.36	1.53	3.19	Siemens Centaur XP/XPT/Classic
	µmol/l	2.88	2.30	3.46	Roche Cobas E411
	µmol/l	2.87	2.30	3.44	Roche Cobas 6000/8000
Digoxin	nmol/l	0.628	0.502	0.754	Abbott Architect
	ng/ml	0.490	0.392	0.588	
	nmol/l	0.788	0.630	0.946	Behring Emit
	ng/ml	0.615	0.492	0.738	
	nmol/l	0.633	0.506	0.760	BioMerieux Vidas
	ng/ml	0.494	0.395	0.593	
	nmol/l	0.955	0.716	1.19	Siemens Centaur XP/XPT/Classic
	ng/ml	0.746	0.560	0.932	
	nmol/l	0.829	0.663	0.995	Siemens Dimension
	ng/ml	0.647	0.518	0.776	
	nmol/l	0.694	0.555	0.833	Siemens Immulite 2000/2500
	ng/ml	0.542	0.433	0.651	
	nmol/l	0.757	0.606	0.908	Siemens Immulite 1000
	ng/ml	0.591	0.473	0.709	
	nmol/l	0.737	0.590	0.884	Beckman DxI800
	ng/ml	0.576	0.461	0.691	
	nmol/l	0.860	0.688	1.03	Roche Integra
	ng/ml	0.672	0.537	0.807	
	nmol/l	0.765	0.612	0.918	Roche Modular E170
	ng/ml	0.597	0.478	0.716	
	nmol/l	0.911	0.729	1.09	Roche Cobas E411
	ng/ml	0.711	0.569	0.853	
	nmol/l	0.850	0.680	1.02	Roche Cobas 6000/8000
	ng/ml	0.664	0.531	0.797	
	nmol/l	1.21	0.968	1.45	Beckman AU400/600/640/2700/5400
	ng/ml	0.945	0.756	1.13	
	nmol/l	0.677	0.542	0.812	Siemens ADVIA 1200/1650/1800/2400
	ng/ml	0.529	0.423	0.635	
	nmol/l	0.896	0.720	1.08	Gravimetric
	ng/ml	0.700	0.560	0.840	

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Ethosuximide	µmol/l	226	181	271	Gravimetric
	µg/ml	32.0	25.7	38.4	
Ferritin	ng/ml = µg/l	13.4	10.7	16.1	Abbott Architect
	ng/ml = µg/l	11.3	9.04	13.6	BioMerieux Vidas
	ng/ml = µg/l	14.1	11.3	16.9	Roche Tinaquant
	ng/ml = µg/l	13.3	10.0	16.6	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	12.5	10.0	15.0	Siemens Dimension
	ng/ml = µg/l	12.3	9.84	14.8	Siemens Immulite 2000/2500
	ng/ml = µg/l	12.0	9.60	14.4	Siemens Immulite 1000
	ng/ml = µg/l	8.79	7.03	10.5	Beckman DxI800
	ng/ml = µg/l	13.4	10.7	16.1	Roche Elecsys
	ng/ml = µg/l	13.1	10.5	15.7	Diasorin Liaison
	ng/ml = µg/l	13.1	10.5	15.7	Roche Modular E170
	ng/ml = µg/l	9.03	7.22	10.8	Beckman Access
	ng/ml = µg/l	9.57	7.66	11.5	Tosoh AIA360
	ng/ml = µg/l	11.3	9.04	13.6	Vitros ECi
	ng/ml = µg/l	13.7	11.0	16.4	Roche Cobas E411
	ng/ml = µg/l	13.5	10.8	16.2	Roche Cobas 6000/8000
Folate	nmol/l	6.88	5.23	8.53	Abbott Architect
	ng/ml	3.03	2.31	3.75	
	nmol/l	14.7	8.09	21.3	Siemens Centaur XP/XPT/Classic (enhanced kit)
	ng/ml	6.48	3.56	9.40	
	nmol/l	5.91	4.49	7.33	Siemens Immulite 2000
	ng/ml	2.61	1.98	3.24	
	nmol/l	6.89	5.24	8.54	Beckman DxI800
	ng/ml	3.04	2.31	3.77	
	nmol/l	8.85	6.73	11.0	Roche Elecsys
	ng/ml	3.90	2.97	4.83	
	nmol/l	9.82	7.46	12.2	Roche Modular E170
	ng/ml	4.33	3.29	5.37	
	nmol/l	7.41	5.63	9.19	Beckman Access
	ng/ml	3.27	2.48	4.06	
	nmol/l	8.95	6.80	11.1	Tosoh AIA360
	ng/ml	3.95	3.00	4.90	
	nmol/l	4.97	3.78	6.16	Vitros ECi
	ng/ml	2.19	1.67	2.71	
	nmol/l	5.38	4.09	6.67	MP Biomedicals RIA
	ng/ml	2.37	1.80	2.94	
	nmol/l	8.67	6.59	10.8	Roche Cobas E411
	ng/ml	3.82	2.91	4.73	
	nmol/l	9.81	7.46	12.2	Roche Cobas 6000/8000
	ng/ml	4.33	3.29	5.37	
	nmol/l	4.09	3.11	5.07	Siemens Dimension
	ng/ml	1.80	1.37	2.23	
Free T3	pmol/l	3.14	2.36	3.93	Abbott Architect
	ng/dl	0.204	0.153	0.255	
	pg/ml	2.04	1.54	2.54	

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Free T3	pmol/l	4.39	3.29	5.49	BioMerieux Vidas
	ng/dl	0.285	0.214	0.356	
	pg/ml	2.86	2.14	3.58	
	pmol/l	4.82	2.89	6.75	Siemens Centaur XP/XPT/Classic
	ng/dl	0.313	0.188	0.438	
	pg/ml	3.14	1.88	4.40	
	pmol/l	4.37	3.28	5.46	Siemens Immulite 2000/2500
	ng/dl	0.284	0.213	0.355	
	pg/ml	2.84	2.14	3.54	
	pmol/l	4.28	3.21	5.35	Siemens Immulite 1000
	ng/dl	0.278	0.209	0.347	
	pg/ml	2.79	2.09	3.49	
	pmol/l	4.26	3.20	5.33	Beckman DxI800
	ng/dl	0.277	0.208	0.346	
	pg/ml	2.77	2.08	3.46	
	pmol/l	5.13	3.85	6.41	Roche Elecsys
	ng/dl	0.333	0.250	0.416	
	pg/ml	3.34	2.51	4.17	
	pmol/l	3.56	2.67	4.45	Diasorin Liaison
	ng/dl	0.231	0.174	0.288	
	pg/ml	2.32	1.74	2.90	
	pmol/l	4.88	3.66	6.10	Roche Modular E170
	ng/dl	0.317	0.238	0.396	
	pg/ml	3.18	2.38	3.98	
	pmol/l	4.27	3.20	5.34	Beckman Access
	ng/dl	0.278	0.208	0.348	
	pg/ml	2.78	2.08	3.48	
	pmol/l	3.95	2.96	4.94	Tosoh AIA360
	ng/dl	0.257	0.192	0.322	
	pg/ml	2.57	1.93	3.21	
	pmol/l	7.68	5.76	9.60	Vitros ECi
	ng/dl	0.499	0.374	0.624	
	pg/ml	5.00	3.75	6.25	
	pmol/l	5.10	3.83	6.38	Roche Cobas E411
	ng/dl	0.332	0.249	0.415	
	pg/ml	3.32	2.49	4.15	
	pmol/l	4.94	3.71	6.18	Roche Cobas 6000/8000
	ng/dl	0.321	0.241	0.401	
	pg/ml	3.22	2.42	4.02	
	pmol/l	3.56	2.67	4.45	Siemens Dimension Vista LOCI
	ng/dl	0.231	0.174	0.288	
	pg/ml	2.32	1.74	2.90	
Free T4	pmol/l	11.7	8.78	14.6	Abbott AXSYM
	ng/dl	0.913	0.685	1.14	
	pg/ml	9.13	6.85	11.4	

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Free T4	pmol/l	12.1	9.08	15.1	Abbott Architect
	ng/dl	0.944	0.708	1.18	
	pg/ml	9.44	7.08	11.8	
	pmol/l	16.5	12.4	20.6	BioMerieux Vidas
	ng/dl	1.29	0.967	1.61	
	pg/ml	12.9	9.67	16.1	
	pmol/l	11.5	8.63	14.4	Siemens Centaur XP/XPT/Classic
	ng/dl	0.897	0.673	1.12	
	pg/ml	8.97	6.73	11.2	
	pmol/l	17.0	12.8	21.3	CIS RIA Coated tube
	ng/dl	1.33	0.998	1.66	
	pg/ml	13.3	9.98	16.6	
	pmol/l	17.6	13.2	22.0	Siemens Immulite 2000/2500
	ng/dl	1.37	1.03	1.71	
	pg/ml	13.7	10.3	17.1	
	pmol/l	17.9	13.4	22.4	Siemens Immulite 1000
	ng/dl	1.40	1.05	1.75	
	pg/ml	14.0	10.5	17.5	
	pmol/l	13.2	9.90	16.5	Beckman DxI800
	ng/dl	1.03	0.772	1.29	
	pg/ml	10.3	7.72	12.9	
	pmol/l	18.5	13.9	23.1	Roche Elecsys
	ng/dl	1.44	1.08	1.80	
	pg/ml	14.4	10.8	18.0	
	pmol/l	15.3	11.5	19.1	Diasorin Liaison
	ng/dl	1.19	0.897	1.48	
	pg/ml	11.9	8.97	14.8	
	pmol/l	18.3	13.7	22.9	Roche Modular E170
	ng/dl	1.43	1.07	1.79	
	pg/ml	14.3	10.7	17.9	
	pmol/l	13.3	9.98	16.6	Beckman Access
	ng/dl	1.04	0.778	1.30	
	pg/ml	10.4	7.78	13.0	
	pmol/l	13.7	10.3	17.1	Tosoh AIA360
	ng/dl	1.07	0.803	1.34	
	pg/ml	10.7	8.03	13.4	
	pmol/l	18.9	14.2	23.6	Vitros ECi
	ng/dl	1.47	1.11	1.83	
	pg/ml	14.7	11.1	18.3	
	pmol/l	18.2	13.7	22.8	Roche Cobas 6000/8000
	ng/dl	1.42	1.07	1.77	
	pg/ml	14.2	10.7	17.7	
	pmol/l	15.1	11.3	18.9	Immunotech IRMA
	ng/dl	1.18	0.881	1.48	
	pg/ml	11.8	8.81	14.8	
	pmol/l	18.5	13.9	23.1	Roche Cobas E411
	ng/dl	1.44	1.08	1.80	
	pg/ml	14.4	10.8	18.0	

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Free T4	pmol/l	17.5	13.1	21.9	Brahms RIA
	ng/dl	1.37	1.02	1.72	
	pg/ml	13.7	10.2	17.2	
	pmol/l	13.8	10.4	17.3	Monobind Inc. ELISA / CLIA
	ng/dl	1.08	0.811	1.35	
	pg/ml	10.8	8.11	13.5	
	pmol/l	12.4	9.30	15.5	Siemens Dimension Vista LOCI
	ng/dl	0.967	0.725	1.21	
	pg/ml	9.67	7.25	12.1	
	pmol/l	17.7	13.3	22.1	Adaltis EIAgen
	ng/dl	1.38	1.04	1.72	
	pg/ml	13.8	10.4	17.2	
FSH	mU/ml	6.17	4.94	7.40	Abbott Architect
	mU/ml	7.32	5.86	8.78	BioMerieux Vidas
	mU/ml	9.18	6.43	11.9	Siemens Centaur XP/XPT/Classic
	mU/ml	6.87	5.50	8.24	Siemens Immulite 2000/2500
	mU/ml	7.22	5.78	8.66	Siemens Immulite 1000
	mU/ml	7.28	5.82	8.74	Beckman DxI800
	mU/ml	7.12	5.70	8.54	Roche/BM Elecsys
	mU/ml	8.67	6.94	10.4	Diasorin Liaison
	mU/ml	6.56	5.25	7.87	Roche Modular E170
	mU/ml	7.41	5.93	8.89	Beckman Access
	mU/ml	8.15	6.52	9.78	Tosoh AIA360
	mU/ml	5.81	4.65	6.97	Vitros ECi
	mU/ml	6.92	5.54	8.30	Roche Cobas E411
	mU/ml	6.59	5.27	7.91	Roche Cobas 6000/8000
	mU/ml	7.53	6.02	9.04	Immunotech IRMA
Gentamicin	µmol/l	4.52	3.62	5.42	Roche Integra
	µg/ml	2.16	1.73	2.59	
	µmol/l	4.21	3.37	5.05	Siemens Dimension Vista
	µg/ml	2.01	1.61	2.41	
	µmol/l	3.45	2.76	4.14	Roche Cobas 6000/8000
	µg/ml	1.65	1.32	1.98	
	µmol/l	4.85	3.88	5.82	Gravimetric
	µg/ml	2.32	1.85	2.78	
Growth Hormone (GH)	µU/ml	5.00	4.00	6.00	Siemens Immulite 2000/2500
	ng/ml	1.67	1.33	2.01	
	µU/ml	4.66	3.73	5.59	Siemens Immulite 1000
	ng/ml	1.55	1.24	1.86	
	µU/ml	3.55	2.84	4.26	Beckman DxI800
	ng/ml	1.18	0.946	1.41	
	µU/ml	3.38	2.70	4.06	Roche Modular E170
	ng/ml	1.13	0.899	1.36	
	µU/ml	3.80	3.04	4.56	Beckman Access
	ng/ml	1.27	1.01	1.53	

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Growth Hormone (GH)	µU/ml	4.19	3.35	5.03	Tosoh AIA360
	ng/ml	1.40	1.12	1.68	
	µU/ml	4.05	3.24	4.86	Diasorin Liaison
	ng/ml	1.35	1.08	1.62	
	µU/ml	3.65	2.92	4.38	Roche Cobas E411
	ng/ml	1.22	0.972	1.47	
	µU/ml	3.47	2.78	4.16	Roche Cobas 6000/8000
	ng/ml	1.16	0.926	1.39	
	µU/ml	4.33	3.46	5.20	IDS iSYS
	ng/ml	1.44	1.15	1.73	
Immunoglobulin E	KIU/l = IU/ml	219	175	263	Abbott Architect
	KIU/l = IU/ml	188	150	226	BioMerieux Vidas
	KIU/l = IU/ml	224	134	314	Siemens Centaur XP/XPT/Classic
	KIU/l = IU/ml	256	205	307	Siemens Immulite 2000/2500
	KIU/l = IU/ml	256	205	307	Siemens Immulite 1000
	KIU/l = IU/ml	211	169	253	Beckman DxI800
	KIU/l = IU/ml	223	178	268	Roche Elecsys
	KIU/l = IU/ml	201	161	241	Pharmacia Unicap
	KIU/l = IU/ml	225	180	270	Roche Modular E170
	KIU/l = IU/ml	216	173	259	Beckman Access
	KIU/l = IU/ml	217	174	260	Tosoh AIA360
	KIU/l = IU/ml	225	180	270	Roche Cobas E411
	KIU/l = IU/ml	225	180	270	Roche Cobas 6000/8000
	KIU/l = IU/ml	218	174	262	Monobind Inc. ELISA / CLIA
Insulin	mU/l	2.80	2.10	3.50	Siemens Centaur XP/XPT/Classic
	mU/l	1.88	1.41	2.35	Abbott AXSYM
	mU/l	2.06	1.55	2.58	Roche Modular E170
	mU/l	2.12	1.59	2.65	Siemens Immulite 2000
	mU/l	2.06	1.55	2.58	Roche Elecsys
	mU/l	1.52	1.14	1.90	Beckman Access
	mU/l	1.87	1.40	2.34	Abbott Architect
	mU/l	2.09	1.57	2.61	Tosoh AIA360
	mU/l	2.09	1.57	2.61	Roche Cobas E411
	mU/l	1.49	1.12	1.86	Beckman DxI 600/800
	mU/l	2.10	1.58	2.63	Roche Cobas 6000/8000
Luteinising Hormone (LH)	mU/ml	3.05	2.44	3.66	Abbott Architect
	mU/ml	3.72	2.98	4.46	BioMerieux Vidas
	mU/ml	3.98	2.99	4.97	Siemens Centaur XP/XPT/Classic
	mU/ml	4.39	3.51	5.27	Siemens Immulite 2000
	mU/ml	4.47	3.58	5.36	Siemens Immulite 1000
	mU/ml	3.49	2.79	4.19	Beckman DxI800
	mU/ml	4.45	3.56	5.34	Roche Elecsys
	mU/ml	5.71	4.57	6.85	Diasorin Liaison
	mU/ml	4.32	3.46	5.18	Roche Modular E170
	mU/ml	3.56	2.85	4.27	Beckman Access

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Luteinising Hormone (LH)	mU/ml	3.83	3.06	4.60	Tosoh AIA360
	mU/ml	6.20	4.96	7.44	Vitros ECi
	mU/ml	4.36	3.49	5.23	Roche Cobas E411
	mU/ml	4.37	3.50	5.24	Roche Cobas 6000/8000
Oestradiol	pmol/l	201	161	241	Abbott Architect
	pg/ml	54.7	43.8	65.6	
	pmol/l	218	174	262	BioMerieux Vidas
	pg/ml	59.3	47.3	71.3	
	pmol/l	217	130	304	Siemens Centaur XP/XPT/Classic
	pg/ml	59.0	35.4	82.6	
	pmol/l	157	126	188	Siemens Immulite 2000/2500
	pg/ml	42.7	34.3	51.1	
	pmol/l	155	124	186	Siemens Immulite 1000
	pg/ml	42.2	33.7	50.7	
	pmol/l	163	122	204	Beckman DxI800
	pg/ml	44.3	33.2	55.4	
	pmol/l	242	194	290	Roche Elecsys
	pg/ml	65.8	52.8	78.8	
	pmol/l	241	193	289	Roche Modular E170
	pg/ml	65.6	52.5	78.7	
	pmol/l	81.9	65.5	98.3	Vitros ECi
	pg/ml	22.3	17.8	26.8	
	pmol/l	242	194	290	Roche Cobas 6000/8000
	pg/ml	65.8	52.8	78.8	
	pmol/l	233	186	280	Roche Cobas E411
	pg/ml	63.4	50.6	76.2	
	pmol/l	216	130	302	Siemens Centaur XP/XPT/Classic Enhanced (eE2)
	pg/ml	58.8	35.3	82.3	
	pmol/l	227	136	318	Siemens Centaur XP/XPT/Classic E26 III
	pg/ml	61.7	37.0	86.4	
	pmol/l	233	186	280	Immunotech RIA Ultra-sensitive
	pg/ml	63.4	50.6	76.2	
Paracetamol	mmol/l	0.153	0.122	0.184	Roche Integra
	mg/l	23.1	18.5	27.7	
	mmol/l	0.158	0.126	0.190	Vitros
	mg/l	23.9	19.1	28.7	
	mmol/l	0.153	0.122	0.184	Abbott Architect
	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	
Parathyroid Hormone (PTH)	pmol/l	1.05	0.788	1.31	Roche Cobas 4000/E411 PTH (1-84)
	pg/ml	9.97	7.48	12.5	
	pmol/l	1.04	0.780	1.30	Roche Modular E170 PTH (1-84)
	pg/ml	9.88	7.41	12.4	
	pmol/l	0.406	0.300	0.510	Siemens Immulite 1000
	pg/ml	3.86	2.85	4.84	

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Parathyroid Hormone (PTH)	pmol/l	1.02	0.770	1.28	Roche Modular E170 PTH/PTH STAT
	pg/ml	9.69	7.31	12.2	
	pmol/l	0.216	0.160	0.270	CIS IRMA
	pg/ml	2.05	1.52	2.56	
	pmol/l	1.06	0.800	1.33	Roche Cobas 4000/e411 PTH/PTH STAT
	pg/ml	10.1	7.60	12.6	
	pmol/l	1.06	0.800	1.33	Roche Cobas 6000/8000 PTH/PTH STAT
	pg/ml	10.1	7.60	12.6	
	pmol/l	1.03	0.770	1.29	Roche Cobas 6000/8000 PTH (1-84)
	pg/ml	9.78	7.31	12.3	
Phenobarbital	µmol/l	34.6	27.7	41.5	Abbott Architect
	µg/ml	8.03	6.43	9.63	
	µmol/l	33.4	26.7	40.1	Siemens ADVIA 1200/1650/1800/2400
	µg/ml	7.75	6.19	9.31	
	µmol/l	35.1	28.1	42.1	Roche Cobas 6000/8000
	µg/ml	8.14	6.52	9.76	
	µmol/l	35.7	28.6	42.8	Siemens Immulite 2000/2500
	µg/ml	8.28	6.64	9.92	
	µmol/l	37.1	29.7	44.5	Roche Modular P-D
	µg/ml	8.61	6.89	10.3	
	µmol/l	29.4	23.5	35.3	Beckman AU400/600/640/2700/5400
	µg/ml	6.82	5.45	8.19	
	µmol/l	39.4	27.6	51.2	Siemens Centaur XP/XPT/Classic
	µg/ml	9.14	6.40	11.9	
	µmol/l	35.9	28.7	43.1	Roche Integra
	µg/ml	8.33	6.66	10.0	
	µmol/l	37.0	29.6	44.4	Siemens Immulite 1000
	µg/ml	8.58	6.87	10.3	
	µmol/l	28.4	22.7	34.1	Beckman DxC
	µg/ml	6.59	5.27	7.91	
	µmol/l	34.5	27.6	41.4	Gravimetric
	µg/ml	8.00	6.40	9.60	
Phenytoin	µmol/l	18.0	14.4	21.6	Abbott AXSYM
	µg/ml	4.55	3.64	5.46	
	µmol/l	19.4	15.5	23.3	Abbott Architect
	µg/ml	4.90	3.91	5.89	
	µmol/l	18.6	14.9	22.3	Behring Emit
	µg/ml	4.70	3.76	5.64	
	µmol/l	21.5	16.1	26.9	Siemens Centaur XP/XPT/Classic
	µg/ml	5.43	4.07	6.79	
	µmol/l	16.9	13.5	20.3	Siemens Dimension
	µg/ml	4.27	3.41	5.13	
	µmol/l	20.3	16.2	24.4	Siemens Immulite 2000/2500
	µg/ml	5.13	4.09	6.17	
	µmol/l	19.6	15.7	23.5	Siemens Immulite 1000
	µg/ml	4.95	3.96	5.94	

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Phenytoin	µmol/l	20.4	16.3	24.5	Hitachi 911/912/917
	µg/ml	5.15	4.12	6.18	
	µmol/l	19.1	15.3	22.9	Roche Integra
	µg/ml	4.82	3.86	5.78	
	µmol/l	16.4	13.1	19.7	Vitros
	µg/ml	4.14	3.31	4.97	
	µmol/l	19.5	15.6	23.4	Roche Modular P-D
	µg/ml	4.92	3.94	5.90	
	µmol/l	18.9	15.1	22.7	Roche Cobas E411
	µg/ml	4.77	3.81	5.73	
	µmol/l	19.1	15.3	22.9	Roche Cobas 6000/8000
	µg/ml	4.82	3.86	5.78	
	µmol/l	18.6	14.9	22.3	Beckman DxC
	µg/ml	4.70	3.76	5.64	
	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	3.00	2.40	3.60	Abbott Architect
	ng/ml	0.939	0.751	1.13	
	nmol/l	3.57	2.86	4.28	BioMerieux Vidas
	ng/ml	1.12	0.895	1.35	
	nmol/l	2.70	1.49	3.91	Siemens Centaur XP/XPT/Classic
	ng/ml	0.845	0.465	1.23	
	nmol/l	3.18	2.54	3.82	Siemens Immulite 2000/2500
	ng/ml	0.995	0.795	1.20	
	nmol/l	2.98	2.38	3.58	Siemens Immulite 1000
	ng/ml	0.933	0.745	1.12	
	nmol/l	2.82	2.26	3.38	Beckman Dxl Prog Cal 33555
	ng/ml	0.883	0.707	1.06	
	nmol/l	2.45	1.96	2.94	Roche Elecsys
	ng/ml	0.767	0.613	0.921	
	nmol/l	2.27	1.82	2.72	Roche Modular E170
	ng/ml	0.711	0.570	0.852	
	nmol/l	3.22	2.58	3.86	Beckman Access Prog Cal 33555
	ng/ml	1.01	0.808	1.21	
	nmol/l	2.45	1.96	2.94	Tosoh AIA360
	ng/ml	0.767	0.613	0.921	
	nmol/l	2.99	2.39	3.59	Vitros ECi
	ng/ml	0.936	0.748	1.12	
	nmol/l	2.50	2.00	3.00	Roche Cobas E411
	ng/ml	0.783	0.626	0.940	
	nmol/l	2.30	1.84	2.76	Roche Cobas 6000/8000
	ng/ml	0.720	0.576	0.864	
Prolactin	µU/ml	120	96.0	144	Abbott Architect
	µU/ml	14.9	11.9	17.9	BioMerieux Vidas

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Prolactin	µU/ml	94.8	66.4	123	Siemens Centaur XP/XPT/Classic
	µU/ml	127	102	152	Siemens Immulite 2000/2500
	µU/ml	141	113	169	Siemens Immulite 1000
	µU/ml	90.4	72.3	108	Beckman DxI800
	µU/ml	133	106	160	Roche Elecsys
	µU/ml	106	84.8	127	Diasorin Liaison
	µU/ml	130	104	156	Roche Modular E170
	µU/ml	95.3	76.2	114	Beckman Access
	µU/ml	119	95.2	143	Vitros ECi
	µU/ml	131	105	157	Roche Elecsys/E170/Cobas 6000/8000 PRLII
	µU/ml	134	107	161	Immunotech IRMA
	µU/ml	135	108	162	Roche Cobas E411
	µU/ml	130	104	156	Roche Cobas 6000/8000
	µU/ml	125	100	150	Adaltis EIAgen
	µU/ml	120	96.0	144	Abbott Architect restandardised
PSA Free	ng/ml = µg/l	1.24	0.930	1.55	Abbott Architect
	ng/ml = µg/l	1.92	1.44	2.40	BioMerieux Vidas
	ng/ml = µg/l	1.39	1.04	1.74	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	1.07	0.803	1.34	Siemens Dimension
	ng/ml = µg/l	1.17	0.878	1.46	Siemens Immulite 2000/2500
	ng/ml = µg/l	1.18	0.885	1.48	Siemens Immulite 1000
	ng/ml = µg/l	1.79	1.34	2.24	Beckman DXI standardised to Hybritech
	ng/ml = µg/l	1.30	0.975	1.63	Roche Elecsys
	ng/ml = µg/l	0.742	0.557	0.928	Diasorin Liaison
	ng/ml = µg/l	1.27	0.953	1.59	Roche Modular E170
	ng/ml = µg/l	1.84	1.38	2.30	Beckman Access standardised to Hybritech
	ng/ml = µg/l	1.16	0.870	1.45	Tosoh AIA360
	ng/ml = µg/l	1.29	0.968	1.61	Roche Cobas E411
	ng/ml = µg/l	1.28	0.960	1.60	Roche Cobas 6000/8000
	ng/ml = µg/l	1.54	1.16	1.93	Beckman DxI800 standardised to WHO IRP96/670
	ng/ml = µg/l	1.72	1.29	2.15	Beckman Access standardised to WHO IRP96/670
	ng/ml = µg/l	1.09	0.818	1.36	Ortho Vitros 3600/5600/ECi PSA II
	ng/ml = µg/l	1.01	0.758	1.26	Fujirebio Lumipulse G
PSA Total	ng/ml = µg/l	1.64	1.23	2.05	Abbott Architect
	ng/ml = µg/l	1.88	1.41	2.35	BioMerieux Vidas
	ng/ml = µg/l	1.86	1.40	2.33	bioMerieux VIDAS TPSA
	ng/ml = µg/l	1.54	1.16	1.93	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	1.36	1.02	1.70	Siemens Immulite 2000/2500 1st generation
	ng/ml = µg/l	1.56	1.17	1.95	Siemens Immulite 1000 3rd generation
	ng/ml = µg/l	1.40	1.05	1.75	Siemens Immulite 2000/2500 3rd generation
	ng/ml = µg/l	1.44	1.08	1.80	Siemens Immulite 1000 1st generation
	ng/ml = µg/l	1.70	1.28	2.13	Beckman DxI standardisd to Hybritech
	ng/ml = µg/l	1.52	1.14	1.90	Beckman DxI800 standardised to WHO IRP96/670
	ng/ml = µg/l	1.84	1.38	2.30	Roche Elecsys
	ng/ml = µg/l	0.838	0.629	1.05	Diasorin Liaison
	ng/ml = µg/l	1.89	1.42	2.36	Roche Modular E170

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
PSA Total	ng/ml = µg/l	1.76	1.32	2.20	Beckman Access standardised to Hybritech
	ng/ml = µg/l	1.67	1.25	2.09	Beckman Access standardised to WHO IRP96/670
	ng/ml = µg/l	1.18	0.885	1.48	Tosoh AIA360
	ng/ml = µg/l	2.24	1.68	2.80	CIS RIA Coated tube
	ng/ml = µg/l	1.83	1.37	2.29	Roche Cobas E411
	ng/ml = µg/l	1.90	1.43	2.38	Roche Cobas 6000/8000
	ng/ml = µg/l	2.63	1.97	3.29	Monobind Inc. ELISA / CLIA
	ng/ml = µg/l	1.42	1.07	1.78	Fujirebio Lumipulse G
	ng/ml = µg/l	1.81	1.36	2.26	Ortho Vitros 3600/5600/ECi PSA II
Salicylic Acid	mmol/l	0.243	0.194	0.292	Roche Integra
	mg/dl	3.36	2.68	4.04	
	mmol/l	0.243	0.194	0.292	Abbott Architect
	mg/dl	3.36	2.68	4.04	
	mmol/l	0.286	0.230	0.340	Gravimetric
	mg/dl	3.95	3.18	4.70	
SHBG	nmol/l	17.3	13.8	20.8	Beckman DxI800
	nmol/l	22.4	17.9	26.9	Siemens Centaur XP/XPT/Classic
	nmol/l	17.9	14.3	21.5	Siemens Immulite 1000
	nmol/l	18.1	14.5	21.7	Siemens Immulite 2000/2500
	nmol/l	18.0	14.4	21.6	Roche Elecsys
	nmol/l	17.9	14.3	21.5	Roche Modular E170
	nmol/l	21.3	17.0	25.6	Abbott Architect
	nmol/l	18.3	14.6	22.0	Roche Cobas E411
	nmol/l	17.5	14.0	21.0	Roche Cobas 6000/8000
T Uptake	%U	33.5	27.5	39.5	Siemens Immulite 2000
Testosterone	nmol/l	1.60	1.28	1.92	Abbott Architect
	ng/ml	0.461	0.369	0.553	
	ng/dl	46.1	36.9	55.3	
	nmol/l	1.21	0.968	1.45	BioMerieux Vidas
	ng/ml	0.348	0.279	0.417	
	ng/dl	34.8	27.9	41.7	
	nmol/l	1.59	1.27	1.91	Siemens Immulite 2000/2500
	ng/ml	0.458	0.366	0.550	
	ng/dl	45.8	36.6	55.0	
	nmol/l	1.17	0.936	1.40	Beckman DxI800
	ng/ml	0.337	0.270	0.404	
	ng/dl	33.7	27.0	40.4	
	nmol/l	1.29	1.03	1.55	Beckman Access
	ng/ml	0.372	0.297	0.447	
	ng/dl	37.2	29.7	44.7	
	nmol/l	1.23	0.984	1.48	Tosoh AIA360
	ng/ml	0.354	0.283	0.425	
	ng/dl	35.4	28.3	42.5	
	nmol/l	1.00	0.800	1.20	Vitros ECi
	ng/ml	0.288	0.230	0.346	
	ng/dl	28.8	23.0	34.6	

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Testosterone	nmol/l	1.67	1.34	2.00	Roche Cobas 6000 Test 2
	ng/ml	0.481	0.386	0.576	
	ng/dl	48.1	38.6	57.6	
	nmol/l	1.70	1.36	2.04	Roche Elecsys Test II
	ng/ml	0.490	0.392	0.588	
	ng/dl	49.0	39.2	58.8	
	nmol/l	1.68	1.34	2.02	Roche Modular E170 Test II
	ng/ml	0.484	0.386	0.582	
	ng/dl	48.4	38.6	58.2	
	nmol/l	1.70	1.36	2.04	Roche Cobas 4000/e411 Test II
	ng/ml	0.490	0.392	0.588	
	ng/dl	49.0	39.2	58.8	
	nmol/l	1.62	1.30	1.94	Abbott Architect 2nd Generation
	ng/ml	0.467	0.374	0.560	
	ng/dl	46.7	37.4	56.0	
	nmol/l	1.11	0.888	1.33	BioMerieux Vidas Testosterone II
	ng/ml	0.320	0.256	0.384	
	ng/dl	32.0	25.6	38.4	
Theophylline	µmol/l	34.0	23.8	44.2	Siemens Centaur XP/XPT/Classic
	µg/ml	6.13	4.29	7.97	
	µmol/l	24.7	19.8	29.6	Siemens Dimension
	µg/ml	4.45	3.57	5.33	
	µmol/l	28.1	22.5	33.7	Roche Integra
	µg/ml	5.06	4.05	6.07	
	µmol/l	30.3	24.2	36.4	Vitros
	µg/ml	5.46	4.36	6.56	
	µmol/l	27.6	22.1	33.1	Abbott Architect
	µg/ml	4.97	3.98	5.96	
	µmol/l	27.3	21.8	32.8	Roche Cobas 6000/8000
	µg/ml	4.92	3.93	5.91	
	µmol/l	24.6	19.7	29.5	Beckman DxC
	µg/ml	4.43	3.55	5.31	
	µmol/l	23.2	18.6	27.8	Beckman AU400/600/640/2700/5400
	µg/ml	4.18	3.35	5.01	
	µmol/l	28.3	22.6	34.0	Gravimetric
	µg/ml	5.10	4.07	6.13	
Thyroglobulin	ng/ml	2.52	1.89	3.15	Roche Elecsys
	ng/ml	2.42	1.82	3.03	Roche Modular E170
	ng/ml	2.02	1.52	2.53	Beckman DxI800
	ng/ml	2.59	1.94	3.24	Roche Cobas E411
	ng/ml	2.54	1.91	3.18	Diesse Chorus
	ng/ml	2.56	1.92	3.20	Roche Cobas 6000/8000
	ng/ml	2.03	1.52	2.54	Beckman Access
	ng/ml	2.94	2.21	3.68	Tosoh AIA360
Thyroid Stimulating Hormone	µU/ml = mIU/l	0.133	0.106	0.160	Abbott Architect
	µU/ml = mIU/l	0.098	0.078	0.118	bioMerieux VIDAS TSH

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Thyroid Stimulating Hormone	µU/ml = mIU/l	0.086	0.069	0.103	bioMerieux VIDAS TSH3 Ultrasensitive
	µU/ml = mIU/l	0.138	0.094	0.182	Siemens Centaur XP/XPT/Classic
	µU/ml = mIU/l	0.241	0.193	0.289	CIS IRMA
	µU/ml = mIU/l	0.135	0.092	0.178	Siemens Centaur XP/XPT/Classic 3rd Generation
	µU/ml = mIU/l	0.121	0.097	0.145	Siemens Dimension
	µU/ml = mIU/l	0.129	0.103	0.155	Siemens Immulite 2000/2500
	µU/ml = mIU/l	0.148	0.118	0.178	Siemens Immulite 1000
	µU/ml = mIU/l	0.130	0.104	0.156	Beckman DxI800 Fast TSH
	µU/ml = mIU/l	0.144	0.115	0.173	Beckman DxI800
	µU/ml = mIU/l	0.181	0.145	0.217	Roche Elecsys
	µU/ml = mIU/l	0.191	0.153	0.229	Diasorin Liaison
	µU/ml = mIU/l	0.176	0.141	0.211	Roche Modular E170
	µU/ml = mIU/l	0.138	0.110	0.166	Beckman Access Fast TSH
	µU/ml = mIU/l	0.138	0.110	0.166	Beckman Access hyperTSH 3rd Generation
	µU/ml = mIU/l	0.138	0.110	0.166	Tosoh AIA360
	µU/ml = mIU/l	0.194	0.155	0.233	Vitros ECi
	µU/ml = mIU/l	0.177	0.142	0.212	Roche Cobas E411
	µU/ml = mIU/l	0.175	0.140	0.210	Roche Cobas 6000/8000
	µU/ml = mIU/l	0.133	0.106	0.160	Beckman DxI800 Hyper TSH
	µU/ml = mIU/l	0.121	0.097	0.145	Siemens Dimension Vista LOCI
	µU/ml = mIU/l	0.131	0.089	0.173	Siemens Centaur XP/XPT/Classic TSH3-Ultra
	µU/ml = mIU/l	0.228	0.182	0.274	Adaltis EIAgen
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	19.7	15.8	23.6	Abbott Architect
	IU/ml	0.020	0.016	0.024	
	mU/ml=IU/l	23.4	18.7	28.1	BioMerieux Vidas
	IU/ml	0.023	0.019	0.027	
	mU/ml=IU/l	27.9	16.7	39.1	Siemens Centaur XP/XPT/Classic
	IU/ml	0.028	0.017	0.039	
	mU/ml=IU/l	22.4	17.9	26.9	Siemens Dimension
	IU/ml	0.022	0.018	0.026	
	mU/ml=IU/l	24.4	19.5	29.3	Siemens Immulite 2000
	IU/ml	0.024	0.020	0.028	
	mU/ml=IU/l	22.6	18.1	27.1	Siemens Immulite 1000
	IU/ml	0.023	0.018	0.028	
	mU/ml=IU/l	19.4	15.5	23.3	Beckman DxI800
	IU/ml	0.019	0.016	0.022	
	mU/ml=IU/l	18.9	15.1	22.7	Diasorin Liaison
	IU/ml	0.019	0.015	0.023	
	mU/ml=IU/l	15.9	12.7	19.1	Roche Cobas Core EIA
	IU/ml	0.016	0.013	0.019	
	mU/ml=IU/l	18.6	14.9	22.3	Beckman Access
	IU/ml	0.019	0.015	0.023	
	mU/ml=IU/l	21.7	17.4	26.0	Tosoh AIA360
	IU/ml	0.022	0.017	0.027	

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Total Beta hCG	mU/ml=IU/l	24.4	19.5	29.3	Vitros ECi
	IU/ml	0.024	0.020	0.028	
	mU/ml=IU/l	19.1	15.3	22.9	Roche STAT (Intact)
	IU/ml	0.019	0.015	0.023	
	mU/ml=IU/l	16.2	13.0	19.4	Roche hCG+Beta
	IU/ml	0.016	0.013	0.019	
	mU/ml=IU/l	18.4	14.7	22.1	Monobind Inc. ELISA / CLIA
	IU/ml	0.018	0.015	0.021	
	mU/ml=IU/l	20.5	16.4	24.6	Beckman Access Total BhCG (5th IS)
	IU/ml	0.021	0.016	0.026	
	mU/ml=IU/l	20.4	16.3	24.5	Beckman DxI Total BhCG (5th IS)
	IU/ml	0.020	0.016	0.024	
Total T3	nmol/l	0.935	0.701	1.17	Abbott Architect
	ng/ml	0.609	0.456	0.762	
	ng/dl	60.9	45.6	76.2	
	nmol/l	0.947	0.710	1.18	BioMerieux Vidas
	ng/ml	0.616	0.462	0.770	
	ng/dl	61.6	46.2	77.0	
	nmol/l	0.849	0.637	1.06	Siemens Centaur XP/XPT/Classic
	ng/ml	0.553	0.415	0.691	
	ng/dl	55.3	41.5	69.1	
	nmol/l	0.711	0.533	0.889	Siemens Immulite 2000/2500
	ng/ml	0.463	0.347	0.579	
	ng/dl	46.3	34.7	57.9	
	nmol/l	0.712	0.534	0.890	Siemens Immulite 1000
	ng/ml	0.464	0.348	0.580	
	ng/dl	46.4	34.8	58.0	
	nmol/l	1.12	0.840	1.40	Beckman DxI800
	ng/ml	0.729	0.547	0.911	
	ng/dl	72.9	54.7	91.1	
	nmol/l	1.73	1.30	2.16	Roche Elecsys
	ng/ml	1.13	0.846	1.41	
	ng/dl	113	84.6	141	
	nmol/l	1.06	0.795	1.33	Diasorin Liaison
	ng/ml	0.690	0.518	0.862	
	ng/dl	69.0	51.8	86.2	
	nmol/l	1.61	1.21	2.01	Roche Modular E170
	ng/ml	1.05	0.788	1.31	
	ng/dl	105	78.8	131	
	nmol/l	1.21	0.908	1.51	Beckman Access
	ng/ml	0.788	0.591	0.985	
	ng/dl	78.8	59.1	98.5	
	nmol/l	0.909	0.682	1.14	Tosoh AIA360
	ng/ml	0.592	0.444	0.740	
	ng/dl	59.2	44.4	74.0	
	nmol/l	1.11	0.833	1.39	Vitros ECi
	ng/ml	0.723	0.542	0.904	
	ng/dl	72.3	54.2	90.4	

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Total T3	nmol/l	0.915	0.686	1.14	CIS RIA Coated tube
	ng/ml	0.596	0.447	0.745	
	ng/dl	59.6	44.7	74.5	
	nmol/l	1.71	1.28	2.14	Roche Cobas E411
	ng/ml	1.11	0.833	1.39	
	ng/dl	111	83.3	139	
	nmol/l	1.60	1.20	2.00	Roche Cobas 6000/8000
	ng/ml	1.04	0.781	1.30	
	ng/dl	104	78.1	130	
	nmol/l	1.00	0.750	1.25	Monobind Inc. ELISA / CLIA
	ng/ml	0.651	0.488	0.814	
	ng/dl	65.1	48.8	81.4	
Total T4	nmol/l	52.2	39.2	65.3	Abbott Architect
	µg/dl	4.07	3.06	5.08	
	ng/ml	40.7	30.6	50.8	
	nmol/l	45.5	34.1	56.9	BioMerieux Vidas
	µg/dl	3.55	2.66	4.44	
	ng/ml	35.5	26.6	44.4	
	nmol/l	35.1	24.6	45.6	Siemens Centaur XP/XPT/Classic
	µg/dl	2.74	1.92	3.56	
	ng/ml	27.4	19.2	35.6	
	nmol/l	40.9	30.7	51.1	Siemens Immulite 2000/2500
	µg/dl	3.19	2.39	3.99	
	ng/ml	31.9	23.9	39.9	
	nmol/l	41.7	31.3	52.1	Siemens Immulite 1000
	µg/dl	3.25	2.44	4.06	
	ng/ml	32.5	24.4	40.6	
	nmol/l	41.1	30.8	51.4	Beckman DxI800
	µg/dl	3.21	2.40	4.02	
	ng/ml	32.1	24.0	40.2	
	nmol/l	57.0	42.8	71.3	Roche Elecsys
	µg/dl	4.45	3.34	5.56	
	ng/ml	44.5	33.4	55.6	
	nmol/l	53.3	40.0	66.6	Diasorin Liaison
	µg/dl	4.16	3.12	5.20	
	ng/ml	41.6	31.2	52.0	
	nmol/l	54.2	40.7	67.8	Roche Modular E170
	µg/dl	4.23	3.17	5.29	
	ng/ml	42.3	31.7	52.9	
	nmol/l	40.6	30.5	50.8	Tosoh AIA360
	µg/dl	3.17	2.38	3.96	
	ng/ml	31.7	23.8	39.6	
	nmol/l	41.0	30.8	51.3	Vitros ECi
	µg/dl	3.20	2.40	4.00	
	ng/ml	32.0	24.0	40.0	

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Total T4	nmol/l	52.6	39.5	65.8	MP Biomedicals RIA
	µg/dl	4.10	3.08	5.12	
	ng/ml	41.0	30.8	51.2	
	nmol/l	48.8	36.6	61.0	CIS RIA Coated tube
	µg/dl	3.81	2.85	4.77	
	ng/ml	38.1	28.5	47.7	
	nmol/l	57.9	43.4	72.4	Roche Cobas E411
	µg/dl	4.52	3.39	5.65	
	ng/ml	45.2	33.9	56.5	
	nmol/l	54.8	41.1	68.5	Roche Cobas 6000/8000
	µg/dl	4.27	3.21	5.33	
	ng/ml	42.7	32.1	53.3	
	nmol/l	49.2	36.9	61.5	Immunotech IRMA
	µg/dl	3.84	2.88	4.80	
	ng/ml	38.4	28.8	48.0	
	nmol/l	52.1	39.1	65.1	Monobind Inc. ELISA / CLIA
	µg/dl	4.06	3.05	5.07	
	ng/ml	40.6	30.5	50.7	
Valproic Acid	µmol/l	185	148	222	Abbott AXSYM
	µg/ml	26.7	21.4	32.0	
	µmol/l	163	130	196	Abbott Architect
	µg/ml	23.5	18.8	28.2	
	µmol/l	224	179	269	Behring Emit
	µg/ml	32.3	25.8	38.8	
	µmol/l	201	141	261	Siemens Centaur XP/XPT/Classic
	µg/ml	29.0	20.3	37.7	
	µmol/l	210	168	252	Siemens Dimension
	µg/ml	30.3	24.2	36.4	
	µmol/l	182	146	218	Siemens Immulite 2000/2500
	µg/ml	26.3	21.1	31.5	
	µmol/l	184	147	221	Siemens Immulite 1000
	µg/ml	26.6	21.2	32.0	
	µmol/l	205	164	246	Hitachi 911/912/917
	µg/ml	29.6	23.7	35.5	
	µmol/l	198	158	238	Roche Integra
	µg/ml	28.6	22.8	34.4	
	µmol/l	188	150	226	Vitros
	µg/ml	27.1	21.6	32.6	
	µmol/l	187	150	224	Roche Modular P-D
	µg/ml	27.0	21.6	32.4	
	µmol/l	195	156	234	Roche Cobas E411
	µg/ml	28.1	22.5	33.7	
	µmol/l	198	158	238	Roche Cobas 6000/8000
	µg/ml	28.6	22.8	34.4	
	µmol/l	170	136	204	Beckman DxC
	µg/ml	24.5	19.6	29.4	

RANDOX

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

Cat. No. IA3109 / IA3112 Lot No. 1476EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Valproic Acid	µmol/l	184	147	221	Beckman AU400/600/640/2700/5400
	µg/ml	26.6	21.2	32.0	
	µmol/l	220	176	264	Siemens ADVIA 1200/1650/1800/2400
	µg/ml	31.7	25.4	38.0	
	µmol/l	243	194	291	Gravimetric
	µg/ml	35.0	28.0	42.0	
Vancomycin	µmol/l	4.28	3.42	5.14	Roche Integra
	µg/ml	6.36	5.08	7.64	
	µmol/l	3.38	2.70	4.06	Ortho Vitros Microslide Systems
	µg/ml	5.02	4.01	6.03	
	µmol/l	3.60	2.88	4.32	Abbott Architect
	µg/ml	5.35	4.28	6.42	
	µmol/l	2.39	1.79	2.99	Siemens Centaur XP/XPT/Classic
	µg/ml	3.55	2.66	4.44	
	µmol/l	3.10	2.48	3.72	Siemens Dimension
	µg/ml	4.61	3.68	5.54	
	µmol/l	3.85	3.08	4.62	Roche Cobas 6000/8000
	µg/ml	5.72	4.58	6.86	
	µmol/l	3.43	2.74	4.12	Gravimetric
	µg/ml	5.10	4.07	6.12	
Vitamin B12	pmol/l	147	118	176	Abbott Architect
	pg/ml	199	160	238	
	pmol/l	120	84.0	156	Siemens Centaur XP/XPT/Classic
	pg/ml	163	114	212	
	pmol/l	111	88.8	133	Siemens Immulite 2000
	pg/ml	150	120	180	
	pmol/l	95.7	76.6	115	Beckman DxI800
	pg/ml	130	104	156	
	pmol/l	142	114	170	Roche Elecsys
	pg/ml	192	154	230	
	pmol/l	127	102	152	Roche Modular E170
	pg/ml	172	138	206	
	pmol/l	103	82.4	124	Beckman Access
	pg/ml	140	112	168	
	pmol/l	126	101	151	Tosoh AIA360
	pg/ml	171	137	205	
	pmol/l	139	111	167	Vitros ECi
	pg/ml	188	150	226	
	pmol/l	117	93.6	140	MP Biomedicals RIA
	pg/ml	159	127	191	
	pmol/l	143	114	172	Roche Cobas E411
	pg/ml	194	154	234	
	pmol/l	123	98.4	148	Roche Cobas 6000/8000
	pg/ml	167	133	201	
	pmol/l	96.7	77.4	116	Siemens Dimension
	pg/ml	131	105	157	

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

Cat. No. IA3110 / IA3112

Lot No. 1477EC

Size: 12 x 5 ml / 12 x 5 ml

Expiry: 2017-10

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 when frozen once at –20°C. C-Peptide is stable for 1 day at +2°C to +8°C. Parathyroid Hormone (PTH) and 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 assayed within 4 hours of reconstitution when stored at +2°C to +8°C. 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: 12 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 and 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.

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

Rev. 14 Aug '15 ne

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
17-OH-Progesterone	nmol/l	11.1	8.33	13.9	Immunotech RIA
	ng/ml	3.67	2.76	4.58	
	nmol/l	12.9	9.68	16.1	DRG ELISA
	ng/ml	4.27	3.20	5.34	
	nmol/l	11.5	8.63	14.4	DIAsource RIA
	ng/ml	3.81	2.86	4.76	
	nmol/l	9.14	6.86	11.4	MP Biomedicals RIA
	ng/ml	3.03	2.27	3.79	
25-OH Vitamin D	nmol/l	53.3	40.0	66.6	Diasorin Liaison
	nmol/l	70.2	52.7	87.8	Siemens Centaur XP/Classic
	nmol/l	43.4	32.6	54.3	Roche Cobas 6000/8000
	nmol/l	48.6	36.5	60.8	HPLC
	nmol/l	54.6	41.0	68.3	Abbott Architect
	nmol/l	73.2	54.9	91.5	Tosoh AIA360
	nmol/l	61.8	46.4	77.3	BioMerieux Vidas
	nmol/l	45.2	33.9	56.5	Beckman DxI 600/800
	nmol/l	49.9	37.4	62.4	Fujirebio Lumipulse G
ACTH	pmol/l	7.65	5.74	9.56	Siemens Immulite 2000/2500
	pg/ml	34.8	26.1	43.5	
	pmol/l	10.3	7.73	12.9	Roche Cobas 6000/8000
	pg/ml	46.8	35.1	58.5	
	pmol/l	9.46	7.10	11.8	Roche Modular E170
	pg/ml	43.0	32.3	53.7	
	pmol/l	9.47	7.10	11.8	Diasorin Liaison
	pg/ml	43.0	32.3	53.7	
Aldosterone	pmol/l	358	269	448	IDS iSYS
	pg/ml	129	97.1	161	
	pmol/l	396	297	495	Diasorin Liaison
	pg/ml	143	107	179	
	pmol/l	467	350	584	Diasorin RIA
	pg/ml	168	126	211	
Alphafoetoprotein	KIU/l = IU/ml	48.4	38.7	58.1	Abbott Architect
	ng/ml	58.6	46.8	70.4	
	KIU/l = IU/ml	45.7	36.6	54.8	BioMerieux Vidas
	ng/ml	55.3	44.3	66.3	
	KIU/l = IU/ml	54.3	42.9	65.7	Siemens Centaur XP/Classic
	ng/ml	65.7	51.9	79.5	
	KIU/l = IU/ml	48.4	38.7	58.1	Siemens Immulite 2000/2500
	ng/ml	58.6	46.8	70.4	
	KIU/l = IU/ml	50.9	40.7	61.1	Siemens Immulite 1000
	ng/ml	61.6	49.2	74.0	
	KIU/l = IU/ml	47.8	38.2	57.4	Beckman DxI800
	ng/ml	57.8	46.2	69.4	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Alphafoetoprotein	KIU/l = IU/ml	52.7	42.2	63.2	Roche Elecsys
	ng/ml	63.8	51.1	76.5	
	KIU/l = IU/ml	54.7	43.8	65.6	Diasorin Liaison
	ng/ml	66.2	53.0	79.4	
	KIU/l = IU/ml	54.1	43.3	64.9	Roche Modular E170
	ng/ml	65.5	52.4	78.6	
	KIU/l = IU/ml	48.9	39.1	58.7	Beckman Access
	ng/ml	59.2	47.3	71.1	
	KIU/l = IU/ml	47.4	37.9	56.9	Tosoh AIA360
	ng/ml	57.4	45.9	68.9	
	KIU/l = IU/ml	48.5	38.8	58.2	Vitros ECi
	ng/ml	58.7	46.9	70.5	
	KIU/l = IU/ml	51.7	41.4	62.0	Brahms Kryptor
	ng/ml	62.6	50.1	75.1	
	KIU/l = IU/ml	54.0	43.2	64.8	Roche Cobas 6000/8000
	ng/ml	65.3	52.3	78.3	
	KIU/l = IU/ml	73.1	58.5	87.7	CIS IRMA
	ng/ml	88.5	70.8	106	
	KIU/l = IU/ml	54.5	43.6	65.4	Roche Cobas E411
	ng/ml	65.9	52.8	79.0	
	KIU/l = IU/ml	48.1	38.5	57.7	Siemens Dimension
	ng/ml	58.2	46.6	69.8	
Amikacin	µmol/l	16.0	12.8	19.2	Roche Integra
	µg/ml	9.37	7.50	11.2	
	µmol/l	15.3	12.2	18.4	EMIT
	µg/ml	8.96	7.14	10.8	
	µmol/l	14.9	11.9	17.9	Roche Cobas 6000/8000
	µg/ml	8.73	6.97	10.5	
	µmol/l	15.3	12.2	18.3	Gravimetric
	µg/ml	8.93	7.14	10.7	
Androstenedione	nmol/l	20.6	15.5	25.8	Siemens Immulite 2000
	ng/ml	5.91	4.45	7.37	
Beta-2-microglobulin	µg/ml = mg/l	2.80	2.24	3.36	Abbott AXSYM
	µg/ml = mg/l	3.69	2.95	4.43	Abbott Architect
	µg/ml = mg/l	4.08	3.26	4.90	Beckman Immage
	µg/ml = mg/l	3.50	2.80	4.20	BioMerieux Vidas
	µg/ml = mg/l	3.45	2.76	4.14	Behring Nephelometer
	µg/ml = mg/l	3.47	2.78	4.16	Roche Tinaquant
	µg/ml = mg/l	3.10	2.48	3.72	Siemens Immulite 2000/2500
	µg/ml = mg/l	3.77	3.02	4.52	Siemens Immulite 1000
	µg/ml = mg/l	3.18	2.54	3.82	Diasorin Liaison
	µg/ml = mg/l	3.58	2.86	4.30	Tosoh AIA360
	µg/ml = mg/l	3.39	2.71	4.07	Roche Cobas 6000/8000
	µg/ml = mg/l	3.46	2.77	4.15	Roche Modular E170
C-Peptide	nmol/l	1.130	0.848	1.410	Siemens Immulite 2000/2500
	ng/ml	3.41	2.56	4.26	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
C-Peptide	nmol/l	1.380	1.040	1.730	Roche Elecsys
	ng/ml	4.17	3.14	5.20	
	nmol/l	1.430	1.070	1.790	Roche Cobas 6000/8000
	ng/ml	4.32	3.23	5.41	
	nmol/l	1.220	0.915	1.530	Siemens Immulite 1000
	ng/ml	3.68	2.76	4.60	
	nmol/l	1.650	1.240	2.060	Diasorin Liaison
	ng/ml	4.98	3.74	6.22	
	nmol/l	1.390	1.040	1.740	Roche Cobas E411
	ng/ml	4.20	3.14	5.26	
	nmol/l	1.280	0.960	1.600	Roche Modular E170
	ng/ml	3.86	2.90	4.82	
	nmol/l	1.050	0.788	1.310	Abbott Architect
	ng/ml	3.17	2.38	3.96	
	nmol/l	1.180	0.885	1.480	Siemens Centaur XP/Classic
	ng/ml	3.56	2.67	4.45	
	nmol/l	0.820	0.615	1.030	Tosoh AIA360
	ng/ml	2.48	1.86	3.10	
CA 15-3	U/ml	40.5	32.4	48.6	Abbott AXSYM
	U/ml	43.6	34.9	52.3	Abbott Architect
	U/ml	39.6	31.7	47.5	BioMerieux Vidas
	U/ml	43.5	29.6	57.4	Siemens Centaur XP/Classic
	U/ml	45.4	36.3	54.5	Siemens Immulite 2000/2500
	U/ml	48.8	39.0	58.6	Siemens Immulite 1000
	U/ml	21.2	17.0	25.4	Beckman DxI800
	U/ml	41.4	33.1	49.7	Roche Elecsys
	U/ml	44.4	35.5	53.3	Diasorin Liaison
	U/ml	41.9	33.5	50.3	Roche Modular E170
	U/ml	21.8	17.4	26.2	Beckman Access
	U/ml	47.1	37.7	56.5	Tosoh AIA360
	U/ml	39.2	31.4	47.0	Vitros ECi
	U/ml	42.3	33.8	50.8	Roche Cobas 6000/8000
	U/ml	42.0	33.6	50.4	Roche Cobas E411
CA 19-9	U/ml	218	174	262	Abbott Architect
	U/ml	88.6	70.9	106	BioMerieux Vidas
	U/ml	76.8	52.2	101	Siemens Centaur XP/Classic
	U/ml	55.8	44.6	67.0	Siemens Immulite 2000/2500
	U/ml	55.2	44.2	66.2	Siemens Immulite 1000
	U/ml	59.2	47.4	71.0	Beckman DxI800
	U/ml	59.9	47.9	71.9	Roche Elecsys
	U/ml	87.2	69.8	105	Diasorin Liaison
	U/ml	60.3	48.2	72.4	Roche Modular E170
	U/ml	59.3	47.4	71.2	Beckman Access
	U/ml	47.6	38.1	57.1	Tosoh AIA360
	U/ml	124	99.0	149	Vitros ECi

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
CA 19-9	U/ml	218	174	262	Abbott Architect XR kit
	U/ml	60.3	48.2	72.4	Roche Cobas 6000/8000
	U/ml	61.4	49.1	73.7	Roche Cobas E411
CA125	U/ml	210	168	252	Abbott Architect
	U/ml	149	119	179	BioMerieux Vidas
	U/ml	148	101	195	Siemens Centaur XP/Classic OV Kit
	U/ml	151	103	199	Siemens Centaur XP/Classic CA125 II kit
	U/ml	151	121	181	Siemens Immulite 2000/2500
	U/ml	188	150	226	Siemens Immulite 1000
	U/ml	118	94.4	142	Beckman DxI800
	U/ml	133	106	160	Roche Elecsys
	U/ml	203	162	244	Diasorin Liaison
	U/ml	134	107	161	Roche Modular E170
	U/ml	114	91.2	137	Beckman Access
	U/ml	310	248	372	Tosoh AIA360
	U/ml	142	114	170	Vitros ECi
	U/ml	136	109	163	Roche Cobas E411
	U/ml	134	107	161	Roche Cobas 6000/8000
	U/ml	145	98.6	191	Siemens Centaur CP CA125 II kit
	U/ml	143	97.2	189	Siemens Centaur CP OV kit
Carbamazepine	µmol/l	36.3	29.0	43.6	Abbott AXSYM
	µg/ml	8.58	6.86	10.3	
	µmol/l	37.4	29.9	44.9	Abbott Architect
	µg/ml	8.84	7.07	10.6	
	µmol/l	40.4	28.3	52.5	Siemens Centaur XP/Classic
	µg/ml	9.55	6.69	12.4	
	µmol/l	37.2	29.8	44.6	Siemens Dimension
	µg/ml	8.79	7.04	10.5	
	µmol/l	34.8	27.8	41.8	Siemens Immulite 2000/2500
	µg/ml	8.23	6.57	9.89	
	µmol/l	36.5	29.2	43.8	Siemens Immulite 1000
	µg/ml	8.63	6.90	10.4	
	µmol/l	38.4	30.7	46.1	Roche Integra
	µg/ml	9.08	7.26	10.9	
	µmol/l	37.6	30.1	45.1	Vitros
	µg/ml	8.89	7.12	10.7	
	µmol/l	34.7	27.8	41.6	Roche Cobas E411
	µg/ml	8.20	6.57	9.83	
	µmol/l	35.4	28.3	42.5	Roche Cobas 6000/8000
	µg/ml	8.37	6.69	10.1	
	µmol/l	37.9	30.3	45.5	Roche Modular
	µg/ml	8.96	7.16	10.8	
	µmol/l	37.4	29.9	44.9	Beckman DxC
	µg/ml	8.84	7.07	10.6	
	µmol/l	38.8	31.0	46.6	Beckman AU400/600/640/2700/5400
	µg/ml	9.17	7.33	11.0	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Carbamazepine	µmol/l	45.3	36.2	54.4	Siemens ADVIA 1200/1650/1800/2400
	µg/ml	10.7	8.56	12.8	
	µmol/l	38.5	30.8	46.2	Gravimetric
	µg/ml	9.10	7.28	10.9	
Carcinoembryonic Antigen (CEA)	ng/ml = µg/l	25.6	20.5	30.7	Abbott Architect
	ng/ml = µg/l	22.1	17.7	26.5	BioMerieux Vidas
	ng/ml = µg/l	23.5	16.0	31.0	Siemens Centaur XP/Classic
	ng/ml = µg/l	18.3	14.6	22.0	CIS RIA Coated tube
	ng/ml = µg/l	30.8	24.6	37.0	Siemens Immulite 2000/2500
	ng/ml = µg/l	30.8	24.6	37.0	Siemens Immulite 1000
	ng/ml = µg/l	22.8	18.2	27.4	Beckman DxI800
	ng/ml = µg/l	20.7	16.6	24.8	Roche Elecsys
	ng/ml = µg/l	22.1	17.7	26.5	Diasorin Liaison
	ng/ml = µg/l	20.0	16.0	24.0	Roche Modular E170
	ng/ml = µg/l	23.8	19.0	28.6	Beckman Access
	ng/ml = µg/l	33.1	26.5	39.7	Tosoh AIA360
	ng/ml = µg/l	22.9	18.3	27.5	Vitros ECi
	ng/ml = µg/l	20.0	16.0	24.0	Roche Cobas 6000/8000
	ng/ml = µg/l	20.6	16.5	24.7	Roche Cobas E411
	ng/ml = µg/l	25.9	20.7	31.1	Monobind Inc. ELISA / CLIA
Cortisol	nmol/l	550	413	688	Abbott Architect
	µg/dl	19.8	14.9	24.7	
	nmol/l	600	450	750	BioMerieux Vidas
	µg/dl	21.6	16.2	27.0	
	nmol/l	705	486	924	Siemens Centaur XP/Classic
	µg/dl	25.4	17.5	33.3	
	nmol/l	524	393	655	CIS RIA
	µg/dl	18.9	14.1	23.7	
	nmol/l	658	494	823	Siemens Immulite 2000/2500
	µg/dl	23.7	17.8	29.6	
	nmol/l	701	526	876	Siemens Immulite 1000
	µg/dl	25.2	18.9	31.5	
	nmol/l	609	457	761	Beckman DxI800
	µg/dl	21.9	16.5	27.3	
	nmol/l	703	527	879	Roche Elecsys
	µg/dl	25.3	19.0	31.6	
	nmol/l	675	506	844	Diasorin Liaison
	µg/dl	24.3	18.2	30.4	
	nmol/l	698	524	873	Roche Modular E170
	µg/dl	25.1	18.9	31.3	
	nmol/l	629	472	786	Beckman Access
	µg/dl	22.6	17.0	28.2	
	nmol/l	664	498	830	Tosoh AIA360
	µg/dl	23.9	17.9	29.9	
	nmol/l	590	443	738	Vitros ECi
	µg/dl	21.2	15.9	26.5	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Cortisol	nmol/l	699	524	874	Roche Cobas 6000/8000
	µg/dl	25.2	18.9	31.5	
	nmol/l	718	539	898	Roche Cobas E411
	µg/dl	25.8	19.4	32.2	
DHEA-S	µmol/l	16.6	13.3	19.9	Abbott Architect
	µmol/l	14.8	11.8	17.8	Siemens Immulite 2000/2500
	µmol/l	14.8	11.8	17.8	Siemens Immulite 1000
	µmol/l	14.9	11.9	17.9	Beckman DxI800
	µmol/l	19.2	15.4	23.0	Roche Elecsys
	µmol/l	20.1	16.1	24.1	Roche Modular E170
	µmol/l	15.7	12.6	18.8	Beckman Access
	µmol/l	13.1	10.5	15.7	Diasorin Liaison
	µmol/l	14.1	9.17	19.0	Siemens Centaur XP/Classic
	µmol/l	18.9	15.1	22.7	Roche Cobas E411
	µmol/l	19.3	15.4	23.2	Roche Cobas 6000/8000
	µmol/l	16.3	13.0	19.6	Immunotech RIA
Digoxin	nmol/l	2.67	2.14	3.20	Abbott Architect
	ng/ml	2.09	1.67	2.51	
	nmol/l	3.02	2.42	3.62	BioMerieux Vidas
	ng/ml	2.36	1.89	2.83	
	nmol/l	3.29	2.53	4.05	Siemens Centaur XP/Classic
	ng/ml	2.57	1.98	3.16	
	nmol/l	3.07	2.46	3.68	Siemens Dimension
	ng/ml	2.40	1.92	2.88	
	nmol/l	3.34	2.67	4.01	Siemens Immulite 2000/2500
	ng/ml	2.61	2.09	3.13	
	nmol/l	3.46	2.77	4.15	Siemens Immulite 1000
	ng/ml	2.70	2.16	3.24	
	nmol/l	3.09	2.47	3.71	Beckman DxI800
	ng/ml	2.41	1.93	2.89	
	nmol/l	3.44	2.75	4.13	Roche Elecsys
	ng/ml	2.69	2.15	3.23	
	nmol/l	3.03	2.42	3.64	Roche Integra
	ng/ml	2.37	1.89	2.85	
	nmol/l	3.21	2.57	3.85	Roche Modular E170
	ng/ml	2.51	2.01	3.01	
	nmol/l	2.91	2.33	3.49	Vitros
	ng/ml	2.27	1.82	2.72	
	nmol/l	3.42	2.74	4.10	Roche Cobas E411
	ng/ml	2.67	2.14	3.20	
	nmol/l	3.34	2.67	4.01	Roche Cobas 6000/8000
	ng/ml	2.61	2.09	3.13	
	nmol/l	2.59	2.07	3.11	Beckman DxC
	ng/ml	2.02	1.62	2.42	
	nmol/l	3.55	2.84	4.26	Beckman AU400/600/640/2700/5400
	ng/ml	2.77	2.22	3.32	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Digoxin	nmol/l	2.97	2.38	3.56	Siemens ADVIA 1200/1650/1800/2400
	ng/ml	2.32	1.86	2.78	
	nmol/l	3.22	2.58	3.86	Microgenics DRI assay
	ng/ml	2.51	2.01	3.01	
	nmol/l	3.07	2.46	3.68	Gravimetric
	ng/ml	2.40	1.92	2.87	
Ethosuximide	µmol/l	360	288	431	Gravimetric
	µg/ml	51.0	40.8	61.1	
Ferritin	ng/ml = µg/l	110	88.0	132	Abbott AXSYM
	ng/ml = µg/l	110	88.0	132	Abbott Architect
	ng/ml = µg/l	91.3	73.0	110	BioMerieux Vidas
	ng/ml = µg/l	100	80.0	120	Roche Tinaquant
	ng/ml = µg/l	95.3	71.5	119	Siemens Centaur XP/Classic
	ng/ml = µg/l	96.1	76.9	115	Siemens Dimension
	ng/ml = µg/l	100	80.0	120	Siemens Immulite 2000/2500
	ng/ml = µg/l	94.1	75.3	113	Siemens Immulite 1000
	ng/ml = µg/l	71.6	57.3	85.9	Beckman DxI800
	ng/ml = µg/l	106	84.8	127	Roche Elecsys
	ng/ml = µg/l	97.8	78.2	117	Diasorin Liaison
	ng/ml = µg/l	104	83.2	125	Roche Modular E170
	ng/ml = µg/l	72.6	58.1	87.1	Beckman Access
	ng/ml = µg/l	77.5	62.0	93.0	Tosoh AIA360
	ng/ml = µg/l	71.3	57.0	85.6	Vitros ECi
	ng/ml = µg/l	92.2	73.8	111	Immunotech IRMA
	ng/ml = µg/l	108	86.4	130	Roche Cobas E411
	ng/ml = µg/l	102	81.6	122	Roche Cobas 6000/8000
	ng/ml = µg/l	88.6	70.9	106	Siemens/Dade Behring Nephelometer
	ng/ml = µg/l	97.7	78.2	117	Beckman AU400/600/640/2700/5400
Folate	nmol/l	11.2	8.51	13.9	Abbott Architect
	ng/ml	4.94	3.75	6.13	
	nmol/l	28.2	18.3	38.1	Siemens Centaur XP/Classic (enhanced kit)
	ng/ml	12.4	8.06	16.7	
	nmol/l	10.5	7.98	13.0	Siemens Immulite 2000
	ng/ml	4.63	3.52	5.74	
	nmol/l	12.5	9.50	15.5	Beckman DxI800
	ng/ml	5.51	4.19	6.83	
	nmol/l	16.6	12.6	20.6	Roche Elecsys
	ng/ml	7.32	5.56	9.08	
	nmol/l	15.9	12.1	19.7	Roche Modular E170
	ng/ml	7.01	5.34	8.68	
	nmol/l	13.2	10.0	16.4	Beckman Access
	ng/ml	5.82	4.41	7.23	
	nmol/l	6.98	5.30	8.66	Vitros ECi
	ng/ml	3.08	2.34	3.82	
	nmol/l	10.2	7.75	12.6	MP Biomedicals RIA
	ng/ml	4.50	3.42	5.58	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Folate	nmol/l	15.9	12.1	19.7	Roche Cobas E411
	ng/ml	7.01	5.34	8.68	
	nmol/l	16.1	12.2	20.0	Roche Cobas 6000/8000
	ng/ml	7.10	5.38	8.82	
	nmol/l	7.15	5.43	8.87	Siemens Dimension
	ng/ml	3.15	2.39	3.91	
	nmol/l	33.5	21.8	45.2	Siemens Centaur CP (enhanced kit)
	ng/ml	14.8	9.62	20.0	
Free T3	pmol/l	14.9	11.2	18.6	Abbott Architect
	ng/dl	0.969	0.728	1.21	
	pg/ml	9.70	7.29	12.1	
	pmol/l	16.7	12.5	20.9	BioMerieux Vidas
	ng/dl	1.09	0.813	1.37	
	pg/ml	10.9	8.14	13.7	
	pmol/l	15.3	9.18	21.4	Siemens Centaur XP/Classic
	ng/dl	0.995	0.597	1.39	
	pg/ml	9.96	5.98	13.9	
	pmol/l	13.2	9.90	16.5	Siemens Immulite 2000/2500
	ng/dl	0.858	0.644	1.07	
	pg/ml	8.59	6.44	10.7	
	pmol/l	12.9	9.68	16.1	Siemens Immulite 1000
	ng/dl	0.839	0.629	1.05	
	pg/ml	8.40	6.30	10.5	
	pmol/l	13.1	9.83	16.4	Beckman DxI800
	ng/dl	0.852	0.639	1.07	
	pg/ml	8.53	6.40	10.7	
	pmol/l	19.5	14.6	24.4	Roche Elecsys
	ng/dl	1.27	0.949	1.59	
	pg/ml	12.7	9.50	15.9	
	pmol/l	22.0	16.5	27.5	Diasorin Liaison
	ng/dl	1.43	1.07	1.79	
	pg/ml	14.3	10.7	17.9	
	pmol/l	19.5	14.6	24.4	Roche Modular E170
	ng/dl	1.27	0.949	1.59	
	pg/ml	12.7	9.50	15.9	
	pmol/l	14.4	10.8	18.0	Beckman Access
	ng/dl	0.936	0.702	1.17	
	pg/ml	9.37	7.03	11.7	
	pmol/l	21.3	16.0	26.6	Tosoh AIA360
	ng/dl	1.38	1.04	1.72	
	pg/ml	13.9	10.4	17.4	
	pmol/l	33.8	25.4	42.3	Vitros ECi
	ng/dl	2.20	1.65	2.75	
	pg/ml	22.0	16.5	27.5	
	pmol/l	19.4	14.6	24.3	Roche Cobas E411
	ng/dl	1.26	0.949	1.57	
	pg/ml	12.6	9.50	15.7	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Free T3	pmol/l	19.8	14.9	24.8	Roche Cobas 6000/8000
	ng/dl	1.29	0.969	1.61	
	pg/ml	12.9	9.70	16.1	
	pmol/l	20.4	15.3	25.5	Siemens Dimension Vista LOCI
	ng/dl	1.33	0.995	1.67	
	pg/ml	13.3	9.96	16.6	
Free T4	pmol/l	30.5	22.9	38.1	Abbott Architect
	ng/dl	2.38	1.79	2.97	
	pg/ml	23.8	17.9	29.7	
	pmol/l	45.4	34.1	56.8	BioMerieux Vidas
	ng/dl	3.54	2.66	4.42	
	pg/ml	35.4	26.6	44.2	
	pmol/l	29.2	21.9	36.5	Siemens Centaur XP/Classic
	ng/dl	2.28	1.71	2.85	
	pg/ml	22.8	17.1	28.5	
	pmol/l	41.6	31.2	52.0	CIS RIA Coated tube
	ng/dl	3.24	2.43	4.05	
	pg/ml	32.4	24.3	40.5	
	pmol/l	40.0	30.0	50.0	Siemens Immulite 2000/2500
	ng/dl	3.12	2.34	3.90	
	pg/ml	31.2	23.4	39.0	
	pmol/l	40.8	30.6	51.0	Siemens Immulite 1000
	ng/dl	3.18	2.39	3.97	
	pg/ml	31.8	23.9	39.7	
	pmol/l	34.6	26.0	43.3	Beckman DxI800
	ng/dl	2.70	2.03	3.37	
	pg/ml	27.0	20.3	33.7	
	pmol/l	41.1	30.8	51.4	Roche Elecsys
	ng/dl	3.21	2.40	4.02	
	pg/ml	32.1	24.0	40.2	
	pmol/l	47.0	35.3	58.8	Diasorin Liaison
	ng/dl	3.67	2.75	4.59	
	pg/ml	36.7	27.5	45.9	
	pmol/l	40.4	30.3	50.5	Roche Modular E170
	ng/dl	3.15	2.36	3.94	
	pg/ml	31.5	23.6	39.4	
	pmol/l	34.3	25.7	42.9	Beckman Access
	ng/dl	2.68	2.00	3.36	
	pg/ml	26.8	20.0	33.6	
	pmol/l	38.1	28.6	47.6	Tosoh AIA360
	ng/dl	2.97	2.23	3.71	
	pg/ml	29.7	22.3	37.1	
	pmol/l	75.9	56.9	94.9	Vitros ECi
	ng/dl	5.92	4.44	7.40	
	pg/ml	59.2	44.4	74.0	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Free T4	pmol/l	40.9	30.7	51.1	Roche Cobas 6000/8000
	ng/dl	3.19	2.39	3.99	
	pg/ml	31.9	23.9	39.9	
	pmol/l	32.0	24.0	40.0	Immunotech IRMA
	ng/dl	2.50	1.87	3.13	
	pg/ml	25.0	18.7	31.3	
	pmol/l	41.1	30.8	51.4	Roche Cobas E411
	ng/dl	3.21	2.40	4.02	
	pg/ml	32.1	24.0	40.2	
	pmol/l	34.6	26.0	43.3	Siemens Dimension Vista LOCI
	ng/dl	2.70	2.03	3.37	
	pg/ml	27.0	20.3	33.7	
	pmol/l	39.9	29.9	49.9	Adaltis EIAgen
	ng/dl	3.11	2.33	3.89	
	pg/ml	31.1	23.3	38.9	
	pmol/l	29.7	22.3	37.1	Monobind Inc. ELISA / CLIA
	ng/dl	2.32	1.74	2.89	
	pg/ml	23.2	17.4	28.9	
FSH	mU/ml	19.9	15.9	23.9	Abbott Architect
	mU/ml	27.8	22.2	33.4	BioMerieux Vidas
	mU/ml	27.3	20.5	34.1	Siemens Centaur XP/Classic
	mU/ml	22.2	17.8	26.6	Siemens Immulite 2000/2500
	mU/ml	22.1	17.7	26.5	Siemens Immulite 1000
	mU/ml	22.2	17.8	26.6	Beckman DxI800
	mU/ml	24.2	19.4	29.0	Roche/BM Elecsys
	mU/ml	27.3	21.8	32.8	Diasorin Liaison
	mU/ml	22.9	18.3	27.5	Roche Modular E170
	mU/ml	21.8	17.4	26.2	Beckman Access
	mU/ml	22.2	17.8	26.6	Tosoh AIA360
	mU/ml	19.4	15.5	23.3	Vitros ECi
	mU/ml	24.0	19.2	28.8	Roche Cobas E411
	mU/ml	23.1	18.5	27.7	Roche Cobas 6000/8000
Gentamicin	µmol/l	7.51	6.01	9.01	Roche Integra
	µg/ml	3.59	2.87	4.31	
	µmol/l	7.78	5.52	10.0	Siemens Centaur XP/Classic
	µg/ml	3.72	2.64	4.80	
	µmol/l	7.32	5.86	8.78	Siemens Dimension Vista
	µg/ml	3.50	2.80	4.20	
	µmol/l	5.94	4.75	7.13	Roche Cobas 6000/8000
	µg/ml	2.84	2.27	3.41	
	µmol/l	8.78	7.02	10.5	Beckman DxC
	µg/ml	4.20	3.36	5.04	
	µmol/l	8.16	6.53	9.79	Gravimetric
	µg/ml	3.90	3.12	4.68	
Growth Hormone (GH)	µU/ml	15.5	12.4	18.6	CIS IRMA
	ng/ml	5.16	4.13	6.19	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Growth Hormone (GH)	µU/ml	19.8	15.8	23.8	Siemens Immulite 2000/2500
	ng/ml	6.59	5.26	7.92	
	µU/ml	17.6	14.1	21.1	Siemens Immulite 1000
	ng/ml	5.86	4.70	7.02	
	µU/ml	15.3	12.2	18.4	Beckman DxI800
	ng/ml	5.09	4.06	6.12	
	µU/ml	14.5	11.6	17.4	Roche Modular E170
	ng/ml	4.83	3.86	5.80	
	µU/ml	16.0	12.8	19.2	Beckman Access
	ng/ml	5.33	4.26	6.40	
	µU/ml	17.6	14.1	21.1	Diasorin Liaison
	ng/ml	5.86	4.70	7.02	
	µU/ml	14.2	11.4	17.0	Roche Cobas E411
	ng/ml	4.73	3.80	5.66	
	µU/ml	14.8	11.8	17.8	Roche Cobas 6000/8000
	ng/ml	4.93	3.93	5.93	
	µU/ml	18.1	14.5	21.7	IDS iSYS
	ng/ml	6.03	4.83	7.23	
Immunoglobulin E	KIU/l = IU/ml	119	95.2	143	Abbott Architect
	KIU/l = IU/ml	114	91.2	137	BioMerieux Vidas
	KIU/l = IU/ml	126	75.6	176	Siemens Centaur XP/Classic
	KIU/l = IU/ml	153	122	184	Siemens Immulite 2000/2500
	KIU/l = IU/ml	159	127	191	Siemens Immulite 1000
	KIU/l = IU/ml	127	102	152	Beckman DxI800
	KIU/l = IU/ml	141	113	169	Roche Elecsys
	KIU/l = IU/ml	128	102	154	Pharmacia Unicap
	KIU/l = IU/ml	140	112	168	Roche Modular E170
	KIU/l = IU/ml	129	103	155	Beckman Access
	KIU/l = IU/ml	129	103	155	Tosoh AIA360
	KIU/l = IU/ml	144	115	173	Roche Cobas E411
	KIU/l = IU/ml	144	115	173	Roche Cobas 6000/8000
	KIU/l = IU/ml	111	88.8	133	Monobind Inc. ELISA / CLIA
Insulin	mU/l	15.7	11.8	19.6	Siemens Centaur XP/Classic
	mU/l	2.66	2.00	3.33	Siemens Immulite 1000
	mU/l	8.42	6.32	10.5	Roche Modular E170
	mU/l	2.61	1.96	3.26	Siemens Immulite 2000
	mU/l	8.50	6.38	10.6	Roche Elecsys
	mU/l	11.0	8.25	13.8	Beckman Access
	mU/l	11.9	8.93	14.9	Abbott Architect
	mU/l	14.5	10.9	18.1	Tosoh AIA360
	mU/l	8.70	6.53	10.9	Roche Cobas E411
	mU/l	11.0	8.25	13.8	Beckman DxI 600/800
	mU/l	12.5	9.38	15.6	Diasorin Liaison
	mU/l	8.60	6.45	10.8	Roche Cobas 6000/8000
	mU/l	10.7	8.03	13.4	Diasource IRMA
Luteinising Hormone	mU/ml	30.8	24.6	37.0	Abbott Architect

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Luteinising Hormone (LH)	mU/ml	34.1	27.3	40.9	BioMerieux Vidas
	mU/ml	37.8	29.1	46.5	Siemens Centaur XP/Classic
	mU/ml	42.1	33.7	50.5	Siemens Immulite 2000
	mU/ml	42.9	34.3	51.5	Siemens Immulite 1000
	mU/ml	33.9	27.1	40.7	Beckman DxI800
	mU/ml	38.3	30.6	46.0	Roche Elecsys
	mU/ml	53.9	43.1	64.7	Diasorin Liaison
	mU/ml	38.0	30.4	45.6	Roche Modular E170
	mU/ml	32.4	25.9	38.9	Beckman Access
	mU/ml	37.1	29.7	44.5	Tosoh AIA360
	mU/ml	47.6	38.1	57.1	Vitros ECi
	mU/ml	38.5	30.8	46.2	Roche Cobas E411
	mU/ml	38.2	30.6	45.8	Roche Cobas 6000/8000
Oestradiol	pmol/l	736	589	883	Abbott Architect
	pg/ml	200	160	240	
	pmol/l	1040	832	1248	BioMerieux Vidas
	pg/ml	283	226	340	
	pmol/l	994	596	1392	Siemens Centaur XP/Classic
	pg/ml	270	162	378	
	pmol/l	1030	824	1236	Siemens Immulite 2000/2500
	pg/ml	280	224	336	
	pmol/l	1089	871	1307	Siemens Immulite 1000
	pg/ml	296	237	355	
	pmol/l	934	747	1121	Beckman DxI800
	pg/ml	254	203	305	
	pmol/l	869	695	1043	Roche Elecsys
	pg/ml	236	189	283	
	pmol/l	872	698	1046	Roche Modular E170
	pg/ml	237	190	284	
	pmol/l	1007	806	1208	Beckman Access
	pg/ml	274	219	329	
	pmol/l	687	550	824	Tosoh (E2)
	pg/ml	187	150	224	
	pmol/l	899	719	1079	Vitros ECi
	pg/ml	245	196	294	
	pmol/l	870	696	1044	Roche Cobas 6000/8000
	pg/ml	237	189	285	
	pmol/l	855	684	1026	Roche Cobas E411
	pg/ml	233	186	280	
	pmol/l	1001	601	1401	Siemens Centaur XP/Classic Enhanced (eE2)
	pg/ml	272	163	381	
	pmol/l	1010	606	1414	Siemens Centaur XP/Classic E26 III
	pg/ml	275	165	385	
	pmol/l	670	536	804	Tosoh (iE2-hsE2)
	pg/ml	182	146	218	
	pmol/l	321	257	385	Immunotech RIA Ultra-sensitive
	pg/ml	87.3	69.9	105	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Paracetamol	mmol/l	0.242	0.194	0.290	Roche Modular E170
	mg/l	36.6	29.4	43.8	
	mmol/l	0.291	0.233	0.349	Roche Integra
	mg/l	44.0	35.3	52.7	
	mmol/l	0.414	0.331	0.497	Vitros
	mg/l	62.6	50.1	75.1	
	mmol/l	0.322	0.258	0.386	Abbott Architect
	mg/l	48.7	39.0	58.4	
	mmol/l	0.348	0.280	0.420	Gravimetric
	mg/l	52.6	42.4	63.5	
Parathyroid Hormone (PTH)	pmol/l	8.54	6.41	10.7	Roche Modular E170 PTH (1-84)
	pg/ml	81.1	60.9	101	
	pmol/l	8.56	6.42	10.7	Roche Cobas 4000/E411 PTH (1-84)
	pg/ml	81.3	61.0	102	
	pmol/l	7.54	5.66	9.43	Roche Elecsys PTH (1-84)
	pg/ml	71.6	53.8	89.6	
	pmol/l	14.3	10.7	17.9	Siemens Centaur XP/Classic
	pg/ml	136	102	170	
	pmol/l	11.3	8.48	14.1	Siemens Immulite 1000
	pg/ml	107	80.5	134	
	pmol/l	13.7	10.3	17.1	Siemens Immulite 2000
	pg/ml	130	97.8	162	
	pmol/l	8.51	6.38	10.6	Roche Elecsys PTH/PTH STAT
	pg/ml	80.8	60.6	101	
	pmol/l	8.15	6.11	10.2	Roche Modular E170 PTH/PTH STAT
	pg/ml	77.4	58.0	96.9	
	pmol/l	8.78	6.59	11.0	Roche Cobas 4000/e411 PTH/PTH STAT
	pg/ml	83.4	62.6	104	
	pmol/l	8.69	6.52	10.9	Roche Cobas 6000/8000 PTH/PTH STAT
	pg/ml	82.5	61.9	104	
	pmol/l	16.2	12.2	20.3	Abbott Architect
	pg/ml	154	116	193	
	pmol/l	9.36	7.02	11.7	Beckman DxI800
	pg/ml	88.9	66.7	111	
	pmol/l	11.7	8.78	14.6	Tosoh AIA360
	pg/ml	111	83.4	139	
	pmol/l	7.13	5.35	8.91	Diasorin Liaison 1-84 PTH
	pg/ml	67.7	50.8	84.6	
Phenobarbital	µmol/l	70.1	56.1	84.1	Abbott AXSYM
	µg/ml	16.3	13.0	19.6	
	µmol/l	81.4	65.1	97.7	Abbott Architect
	µg/ml	18.9	15.1	22.7	
	µmol/l	75.9	60.7	91.1	Roche Cobas 6000/8000
	µg/ml	17.6	14.1	21.1	
	µmol/l	79.2	63.4	95.0	Siemens Immulite 2000/2500
	µg/ml	18.4	14.7	22.1	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Phenobarbital	µmol/l	86.9	69.5	104	Roche Modular P-D
	µg/ml	20.2	16.1	24.3	
	µmol/l	78.7	63.0	94.4	Beckman AU400/600/640/2700/5400
	µg/ml	18.3	14.6	22.0	
	µmol/l	87.8	63.2	112	Siemens Centaur XP/Classic
	µg/ml	20.4	14.7	26.1	
	µmol/l	78.5	62.8	94.2	Roche Integra
	µg/ml	18.2	14.6	21.8	
	µmol/l	74.4	59.5	89.3	Siemens Immulite 1000
	µg/ml	17.3	13.8	20.8	
	µmol/l	75.9	60.7	91.1	Beckman DxC
	µg/ml	17.6	14.1	21.1	
	µmol/l	77.6	62.1	93.1	Gravimetric
	µg/ml	18.0	14.4	21.6	
Phenytoin	µmol/l	62.8	50.2	75.4	Abbott AXSYM
	µg/ml	15.9	12.7	19.1	
	µmol/l	66.9	53.5	80.3	Abbott Architect
	µg/ml	16.9	13.5	20.3	
	µmol/l	79.2	63.4	95.0	Behring Emit
	µg/ml	20.0	16.0	24.0	
	µmol/l	75.5	58.9	92.1	Siemens Centaur XP/Classic
	µg/ml	19.1	14.9	23.3	
	µmol/l	72.8	58.2	87.4	Siemens Dimension
	µg/ml	18.4	14.7	22.1	
	µmol/l	67.1	53.7	80.5	Siemens Immulite 2000/2500
	µg/ml	16.9	13.6	20.2	
	µmol/l	64.7	51.8	77.6	Siemens Immulite 1000
	µg/ml	16.3	13.1	19.5	
	µmol/l	67.2	53.8	80.6	Roche Integra
	µg/ml	17.0	13.6	20.4	
	µmol/l	65.2	52.2	78.2	Vitros
	µg/ml	16.5	13.2	19.8	
	µmol/l	71.2	57.0	85.4	Roche Modular P-D
	µg/ml	18.0	14.4	21.6	
	µmol/l	66.8	53.4	80.2	Roche Cobas E411
	µg/ml	16.9	13.5	20.3	
	µmol/l	66.3	53.0	79.6	Roche Cobas 6000/8000
	µg/ml	16.7	13.4	20.0	
	µmol/l	62.0	49.6	74.4	Beckman DxC
	µg/ml	15.7	12.5	18.9	
	µmol/l	71.3	57.0	85.6	Gravimetric
	µg/ml	18.0	14.4	21.6	
Primidone	µmol/l	22.5	18.0	27.0	Gravimetric
	µg/ml	4.92	3.93	5.89	
Progesterone	nmol/l	31.2	25.0	37.4	Abbott AXSYM
	ng/ml	9.77	7.83	11.7	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Progesterone	nmol/l	25.1	20.1	30.1	Abbott Architect
	ng/ml	7.86	6.29	9.43	
	nmol/l	39.4	31.5	47.3	BioMerieux Vidas
	ng/ml	12.3	9.86	14.7	
	nmol/l	23.4	16.4	30.4	Siemens Centaur XP/Classic
	ng/ml	7.32	5.12	9.52	
	nmol/l	32.6	26.1	39.1	CIS RIA Coated tube
	ng/ml	10.2	8.17	12.2	
	nmol/l	27.4	21.9	32.9	Siemens Immulite 2000/2500
	ng/ml	8.58	6.85	10.3	
	nmol/l	29.3	23.4	35.2	Siemens Immulite 1000
	ng/ml	9.17	7.32	11.0	
	nmol/l	33.5	26.8	40.2	Beckman DxI Prog Cal 33555
	ng/ml	10.5	8.39	12.6	
	nmol/l	33.5	26.8	40.2	Roche Elecsys
	ng/ml	10.5	8.39	12.6	
	nmol/l	31.9	25.5	38.3	Roche Modular E170
	ng/ml	9.98	7.98	12.0	
	nmol/l	34.1	27.3	40.9	Beckman Access Prog Cal 33555
	ng/ml	10.7	8.54	12.9	
	nmol/l	35.1	28.1	42.1	Tosoh AIA360
	ng/ml	11.0	8.80	13.2	
	nmol/l	37.1	29.7	44.5	Vitros ECi
	ng/ml	11.6	9.30	13.9	
	nmol/l	33.6	26.9	40.3	Roche Cobas E411
	ng/ml	10.5	8.42	12.6	
	nmol/l	32.3	25.8	38.8	Roche Cobas 6000/8000
	ng/ml	10.1	8.08	12.1	
	nmol/l	26.8	21.4	32.2	Diasorin Liaison
	ng/ml	8.39	6.70	10.1	
	nmol/l	27.1	21.7	32.5	Beckman DxI Prog DE Cal A80773
	ng/ml	8.48	6.79	10.2	
Prolactin	µU/ml	604	483	725	Abbott Architect
	µU/ml	339	271	407	BioMerieux Vidas
	µU/ml	445	347	543	Siemens Centaur XP/Classic
	µU/ml	629	503	755	Siemens Immulite 2000/2500
	µU/ml	684	547	821	Siemens Immulite 1000
	µU/ml	423	338	508	Beckman DxI800
	µU/ml	714	571	857	Roche Elecsys
	µU/ml	596	477	715	Diasorin Liaison
	µU/ml	695	556	834	Roche Modular E170
	µU/ml	436	349	523	Beckman Access
	µU/ml	151	121	181	Tosoh AIA360
	µU/ml	381	305	457	Vitros ECi
	µU/ml	698	558	838	Roche Elecsys/E170/Cobas 6000/8000 PRLII

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Prolactin	µU/ml	584	467	701	Immunotech IRMA
	µU/ml	724	579	869	Roche Cobas E411
	µU/ml	697	558	836	Roche Cobas 6000/8000
	µU/ml	705	564	846	Adaltis EIAgen
	µU/ml	604	483	725	Abbott Architect restandardised
PSA Free	ng/ml = µg/l	9.12	6.84	11.4	Abbott Architect
	ng/ml = µg/l	12.5	9.38	15.6	BioMerieux Vidas
	ng/ml = µg/l	9.71	7.28	12.1	Siemens Centaur XP/Classic
	ng/ml = µg/l	7.99	5.99	9.99	Siemens Dimension
	ng/ml = µg/l	8.14	6.11	10.2	Siemens Immulite 2000/2500
	ng/ml = µg/l	7.93	5.95	9.91	Siemens Immulite 1000
	ng/ml = µg/l	12.3	9.23	15.4	Beckman DXI standardised to Hybritech
	ng/ml = µg/l	9.35	7.01	11.7	Roche Elecsys
	ng/ml = µg/l	4.89	3.67	6.11	Diasorin Liaison
	ng/ml = µg/l	8.98	6.74	11.2	Roche Modular E170
	ng/ml = µg/l	12.2	9.15	15.3	Beckman Access standardised to Hybritech
	ng/ml = µg/l	8.22	6.17	10.3	Tosoh AIA360
	ng/ml = µg/l	9.16	6.87	11.5	Roche Cobas E411
	ng/ml = µg/l	9.04	6.78	11.3	Roche Cobas 6000/8000
	ng/ml = µg/l	10.3	7.73	12.9	Beckman DxI800 standardised to WHO IRP96/670
	ng/ml = µg/l	11.6	8.70	14.5	Beckman Access standardised to WHO IRP96/670
	ng/ml = µg/l	7.95	5.96	9.94	Ortho Vitros 3600/5600/ECi PSA II
	ng/ml = µg/l	7.36	5.52	9.20	Fujirebio Lumipulse G
PSA Total	ng/ml = µg/l	11.4	8.55	14.3	Abbott Architect
	ng/ml = µg/l	11.2	8.40	14.0	BioMerieux Vidas
	ng/ml = µg/l	11.5	8.63	14.4	bioMerieux VIDAS TPSA
	ng/ml = µg/l	10.5	7.88	13.1	Siemens Centaur XP/Classic
	ng/ml = µg/l	9.43	7.07	11.8	Siemens Immulite 2000/2500 1st generation
	ng/ml = µg/l	9.56	7.17	12.0	Siemens Immulite 1000 3rd generation
	ng/ml = µg/l	9.26	6.95	11.6	Siemens Immulite 2000/2500 3rd generation
	ng/ml = µg/l	9.30	6.98	11.6	Siemens Immulite 1000 1st generation
	ng/ml = µg/l	12.4	9.30	15.5	Beckman DxI standardisd to Hybritech
	ng/ml = µg/l	10.4	7.80	13.0	Beckman DxI800 standardised to WHO IRP96/670
	ng/ml = µg/l	13.1	9.83	16.4	Roche Elecsys
	ng/ml = µg/l	6.04	4.53	7.55	Diasorin Liaison
	ng/ml = µg/l	13.3	9.98	16.6	Roche Modular E170
	ng/ml = µg/l	12.3	9.23	15.4	Beckman Access standardised to Hybritech
	ng/ml = µg/l	12.3	9.23	15.4	Beckman Access standardised to WHO IRP96/670
	ng/ml = µg/l	7.90	5.93	9.88	Tosoh AIA360
	ng/ml = µg/l	12.2	9.15	15.3	Vitros ECi
	ng/ml = µg/l	12.2	9.15	15.3	CIS RIA Coated tube
	ng/ml = µg/l	13.4	10.1	16.8	Roche Cobas E411
	ng/ml = µg/l	13.4	10.1	16.8	Roche Cobas 6000/8000
	ng/ml = µg/l	17.4	13.1	21.8	Monobind Inc. ELISA / CLIA
	ng/ml = µg/l	10.0	7.50	12.5	Fujirebio Lumipulse G
	ng/ml = µg/l	13.2	9.90	16.5	Ortho Vitros 3600/5600/ECi PSA II

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Salicylic Acid	mmol/l	1.20	0.960	1.44	Roche Modular E170
	mg/dl	16.6	13.3	19.9	
	mmol/l	1.14	0.912	1.37	Roche Integra
	mg/dl	15.7	12.6	18.8	
	mmol/l	1.19	0.952	1.43	Abbott Architect
	mg/dl	16.4	13.1	19.7	
	mmol/l	1.22	0.976	1.46	Beckman DxC
	mg/dl	16.9	13.5	20.3	
	mmol/l	1.22	0.980	1.46	Gravimetric
	mg/dl	16.9	13.5	20.2	
SHBG	nmol/l	34.7	27.8	41.6	Beckman DxI800
	nmol/l	47.9	38.3	57.5	Siemens Centaur XP/Classic
	nmol/l	33.8	27.0	40.6	Siemens Immulite 1000
	nmol/l	35.2	28.2	42.2	Siemens Immulite 2000/2500
	nmol/l	36.2	29.0	43.4	Roche Elecsys
	nmol/l	36.0	28.8	43.2	Roche Cobas E411
	nmol/l	34.8	27.8	41.8	Roche Modular E170
	nmol/l	40.9	32.7	49.1	Abbott Architect
	nmol/l	35.1	28.1	42.1	Roche Cobas 6000/8000
T Uptake	%U	37.7	30.9	44.5	Siemens Immulite 2000
Testosterone	nmol/l	12.1	9.68	14.5	Abbott AXSYM
	ng/ml	3.48	2.79	4.17	
	ng/dl	348	279	417	
	nmol/l	12.0	9.60	14.4	Abbott Architect
	ng/ml	3.46	2.76	4.16	
	ng/dl	346	276	416	
	nmol/l	11.0	7.70	14.3	Siemens Centaur XP/Classic
	ng/ml	3.17	2.22	4.12	
	ng/dl	317	222	412	
	nmol/l	14.0	11.2	16.8	CIS RIA Coated tube
	ng/ml	4.03	3.23	4.83	
	ng/dl	403	323	483	
	nmol/l	14.9	11.9	17.9	Siemens Immulite 2000/2500
	ng/ml	4.29	3.43	5.15	
	ng/dl	429	343	515	
	nmol/l	20.8	16.6	25.0	Siemens Immulite 1000
	ng/ml	5.99	4.78	7.20	
	ng/dl	599	478	720	
	nmol/l	10.0	8.00	12.0	Beckman DxI800
	ng/ml	2.88	2.30	3.46	
	ng/dl	288	230	346	
	nmol/l	11.1	8.88	13.3	Beckman Access
	ng/ml	3.20	2.56	3.84	
	ng/dl	320	256	384	
	nmol/l	17.0	13.6	20.4	Tosoh AIA360
	ng/ml	4.90	3.92	5.88	
	ng/dl	490	392	588	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Testosterone	nmol/l	15.2	12.2	18.2	Vitros ECi
	ng/ml	4.38	3.51	5.25	
	ng/dl	438	351	525	
	nmol/l	12.5	10.0	15.0	Roche Cobas 6000 Test 2
	ng/ml	3.60	2.88	4.32	
	ng/dl	360	288	432	
	nmol/l	13.1	10.5	15.7	Roche Elecsys Test II
	ng/ml	3.77	3.02	4.52	
	ng/dl	377	302	452	
	nmol/l	12.6	10.1	15.1	Roche Modular E170 Test II
	ng/ml	3.63	2.91	4.35	
	ng/dl	363	291	435	
	nmol/l	12.7	10.2	15.2	Roche Cobas 4000/e411 Test II
	ng/ml	3.66	2.94	4.38	
	ng/dl	366	294	438	
	nmol/l	12.0	9.60	14.4	Abbott Architect 2nd Generation
	ng/ml	3.46	2.76	4.16	
	ng/dl	346	276	416	
	nmol/l	8.80	7.04	10.6	BioMerieux Vidas Testosterone II
	ng/ml	2.53	2.03	3.03	
	ng/dl	253	203	303	
Theophylline	µmol/l	80.2	64.2	96.2	Siemens Centaur XP/Classic
	µg/ml	14.5	11.6	17.4	
	µmol/l	79.5	63.6	95.4	Siemens Dimension
	µg/ml	14.3	11.5	17.1	
	µmol/l	79.8	63.8	95.8	Siemens Immulite 2000/2500
	µg/ml	14.4	11.5	17.3	
	µmol/l	84.5	67.6	101	Roche Integra
	µg/ml	15.2	12.2	18.2	
	µmol/l	120	96.0	144	Vitros
	µg/ml	21.6	17.3	25.9	
	µmol/l	77.9	62.3	93.5	Abbott Architect
	µg/ml	14.0	11.2	16.8	
	µmol/l	80.9	64.7	97.1	Roche Cobas 6000/8000
	µg/ml	14.6	11.7	17.5	
	µmol/l	80.8	64.6	97.0	Beckman DxC
	µg/ml	14.6	11.6	17.6	
	µmol/l	79.2	63.4	95.0	Beckman AU400/600/640/2700/5400
	µg/ml	14.3	11.4	17.2	
	µmol/l	83.8	67.0	101	Gravimetric
	µg/ml	15.1	12.1	18.2	
Thyroglobulin	ng/ml	17.2	12.9	21.5	Siemens Immulite 1000
	ng/ml	16.3	12.2	20.4	Siemens Immulite 2000
	ng/ml	32.6	24.5	40.8	Roche Elecsys
	ng/ml	32.1	24.1	40.1	Roche Modular E170

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Thyroglobulin	ng/ml	32.7	24.5	40.9	Beckman DxI800
	ng/ml	33.2	24.9	41.5	Roche Cobas E411
	ng/ml	33.3	25.0	41.6	Roche Cobas 6000/8000
	ng/ml	32.2	24.2	40.3	Beckman Access
	ng/ml	35.5	26.6	44.4	Tosoh AIA360
Thyroid Stimulating Hormone	µU/ml = mIU/l	2.12	1.70	2.54	Abbott Architect
	µU/ml = mIU/l	2.35	1.88	2.82	bioMerieux VIDAS TSH
	µU/ml = mIU/l	2.15	1.72	2.58	bioMerieux VIDAS TSH3 Ultrasensitive
	µU/ml = mIU/l	2.35	1.60	3.10	Siemens Centaur XP/Classic
	µU/ml = mIU/l	2.80	2.24	3.36	CIS IRMA
	µU/ml = mIU/l	2.32	1.58	3.06	Siemens Centaur XP/Classic 3rd Generation
	µU/ml = mIU/l	2.03	1.62	2.44	Siemens Dimension
	µU/ml = mIU/l	2.38	1.90	2.86	Siemens Immulite 2000/2500
	µU/ml = mIU/l	2.38	1.90	2.86	Siemens Immulite 1000
	µU/ml = mIU/l	2.06	1.65	2.47	Beckman DxI800 Fast TSH
	µU/ml = mIU/l	2.26	1.81	2.71	Beckman DxI800
	µU/ml = mIU/l	2.42	1.94	2.90	Roche Elecsys
	µU/ml = mIU/l	2.88	2.30	3.46	Diasorin Liaison
	µU/ml = mIU/l	2.42	1.94	2.90	Roche Modular E170
	µU/ml = mIU/l	2.16	1.73	2.59	Beckman Access Fast TSH
	µU/ml = mIU/l	2.22	1.78	2.66	Beckman Access hyperTSH 3rd Generation
	µU/ml = mIU/l	2.38	1.90	2.86	Tosoh AIA360
	µU/ml = mIU/l	2.57	2.06	3.08	Vitros ECi
	µU/ml = mIU/l	2.29	1.83	2.75	Beckman Coulter AU3000i
	µU/ml = mIU/l	2.51	2.01	3.01	Immunotech IRMA
	µU/ml = mIU/l	2.44	1.95	2.93	Roche Cobas E411
	µU/ml = mIU/l	2.41	1.93	2.89	Roche Cobas 6000/8000
	µU/ml = mIU/l	2.17	1.74	2.60	Beckman DxI800 Hyper TSH
	µU/ml = mIU/l	2.28	1.82	2.74	Monobind Inc. ELISA / CLIA
	µU/ml = mIU/l	2.01	1.61	2.41	Siemens Dimension Vista LOCI
	µU/ml = mIU/l	2.27	1.54	3.00	Siemens Centaur XP/Classic TSH3-Ultra
	µU/ml = mIU/l	2.50	2.00	3.00	Adaltis EIAgen
Tobramycin	µmol/l	7.16	5.73	8.59	Gravimetric
	µg/ml	3.35	2.68	4.02	
Total Beta hCG	mU/ml=IU/l	15.0	12.0	18.0	Abbott Architect
	IU/ml	0.015	0.012	0.018	
	mU/ml=IU/l	26.3	21.0	31.6	BioMerieux Vidas
	IU/ml	0.026	0.021	0.031	
	mU/ml=IU/l	18.6	11.2	26.0	Siemens Centaur XP/Classic
	IU/ml	0.019	0.011	0.027	
	mU/ml=IU/l	25.5	20.4	30.6	Siemens Dimension
	IU/ml	0.026	0.020	0.032	
	mU/ml=IU/l	31.5	25.2	37.8	Siemens Immulite 2000
	IU/ml	0.032	0.025	0.039	
	mU/ml=IU/l	28.9	23.1	34.7	Siemens Immulite 1000
	IU/ml	0.029	0.023	0.035	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Total Beta hCG	mU/ml=IU/l	15.7	12.6	18.8	Beckman DxI800
	IU/ml	0.016	0.013	0.019	
	mU/ml=IU/l	12.7	10.2	15.2	Diasorin Liaison
	IU/ml	0.013	0.010	0.016	
	mU/ml=IU/l	15.9	12.7	19.1	Roche Cobas Core EIA
	IU/ml	0.016	0.013	0.019	
	mU/ml=IU/l	14.9	11.9	17.9	Beckman Access
	IU/ml	0.015	0.012	0.018	
	mU/ml=IU/l	25.8	20.6	31.0	Tosoh AIA360
	IU/ml	0.026	0.021	0.031	
	mU/ml=IU/l	28.3	22.6	34.0	Vitros ECi
	IU/ml	0.028	0.023	0.033	
	mU/ml=IU/l	22.2	17.8	26.6	Roche STAT (Intact)
	IU/ml	0.022	0.018	0.026	
	mU/ml=IU/l	15.9	12.7	19.1	Roche hCG+Beta
	IU/ml	0.016	0.013	0.019	
	mU/ml=IU/l	16.0	12.8	19.2	Beckman Access Total BhCG (5th IS)
	IU/ml	0.016	0.013	0.019	
	mU/ml=IU/l	16.8	13.4	20.2	Beckman DxI Total BhCG (5th IS)
	IU/ml	0.017	0.013	0.021	
Total T3	nmol/l	4.15	3.11	5.19	Abbott Architect
	ng/ml	2.70	2.02	3.38	
	ng/dl	270	202	338	
	nmol/l	4.98	3.74	6.23	BioMerieux Vidas
	ng/ml	3.24	2.43	4.05	
	ng/dl	324	243	405	
	nmol/l	5.64	4.23	7.05	Siemens Centaur XP/Classic
	ng/ml	3.67	2.75	4.59	
	ng/dl	367	275	459	
	nmol/l	4.28	3.21	5.35	Siemens Immulite 2000/2500
	ng/ml	2.79	2.09	3.49	
	ng/dl	279	209	349	
	nmol/l	4.53	3.40	5.66	Siemens Immulite 1000
	ng/ml	2.95	2.21	3.69	
	ng/dl	295	221	369	
	nmol/l	4.20	3.15	5.25	Beckman DxI800
	ng/ml	2.73	2.05	3.41	
	ng/dl	273	205	341	
	nmol/l	4.94	3.71	6.18	Roche Elecsys
	ng/ml	3.22	2.42	4.02	
	ng/dl	322	242	402	
	nmol/l	4.52	3.39	5.65	Diasorin Liaison
	ng/ml	2.94	2.21	3.67	
	ng/dl	294	221	367	
	nmol/l	4.72	3.54	5.90	Roche Modular E170
	ng/ml	3.07	2.30	3.84	
	ng/dl	307	230	384	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Total T3	nmol/l	4.32	3.24	5.40	Beckman Access
	ng/ml	2.81	2.11	3.51	
	ng/dl	281	211	351	
	nmol/l	4.70	3.53	5.88	Tosoh AIA360
	ng/ml	3.06	2.30	3.82	
	ng/dl	306	230	382	
	nmol/l	5.06	3.80	6.33	Vitros ECi
	ng/ml	3.29	2.47	4.11	
	ng/dl	329	247	411	
	nmol/l	3.31	2.48	4.14	CIS RIA Coated tube
	ng/ml	2.15	1.61	2.69	
	ng/dl	215	161	269	
	nmol/l	4.81	3.61	6.01	Roche Cobas E411
	ng/ml	3.13	2.35	3.91	
	ng/dl	313	235	391	
	nmol/l	4.68	3.51	5.85	Roche Cobas 6000/8000
	ng/ml	3.05	2.29	3.81	
	ng/dl	305	229	381	
	nmol/l	4.53	3.40	5.66	Monobind Inc. ELISA / CLIA
	ng/ml	2.95	2.21	3.69	
	ng/dl	295	221	369	
Total T4	nmol/l	139	104	174	Abbott Architect
	µg/dl	10.8	8.11	13.5	
	ng/ml	108	81.1	135	
	nmol/l	147	110	184	BioMerieux Vidas
	µg/dl	11.5	8.58	14.4	
	ng/ml	115	85.8	144	
	nmol/l	154	100	208	Siemens Centaur XP/Classic
	µg/dl	12.0	7.80	16.2	
	ng/ml	120	78.0	162	
	nmol/l	146	110	183	Siemens Immulite 2000/2500
	µg/dl	11.4	8.58	14.2	
	ng/ml	114	85.8	142	
	nmol/l	152	114	190	Siemens Immulite 1000
	µg/dl	11.9	8.89	14.9	
	ng/ml	119	88.9	149	
	nmol/l	136	102	170	Beckman DxI800
	µg/dl	10.6	7.96	13.2	
	ng/ml	106	79.6	132	
	nmol/l	133	100	166	Roche Elecsys
	µg/dl	10.4	7.80	13.0	
	ng/ml	104	78.0	130	
	nmol/l	132	99.0	165	Roche Modular E170
	µg/dl	10.3	7.72	12.9	
	ng/ml	103	77.2	129	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Total T4	nmol/l	144	108	180	Beckman Access
	µg/dl	11.2	8.42	14.0	
	ng/ml	112	84.2	140	
	nmol/l	129	96.8	161	Tosoh AIA360
	µg/dl	10.1	7.55	12.7	
	ng/ml	101	75.5	127	
	nmol/l	143	107	179	Vitros ECi
	µg/dl	11.2	8.35	14.1	
	ng/ml	112	83.5	141	
	nmol/l	137	103	171	MP Biomedicals RIA
	µg/dl	10.7	8.03	13.4	
	ng/ml	107	80.3	134	
	nmol/l	131	98.3	164	CIS RIA Coated tube
	µg/dl	10.2	7.67	12.7	
	ng/ml	102	76.7	127	
	nmol/l	134	101	168	Roche Cobas E411
	µg/dl	10.5	7.88	13.1	
	ng/ml	105	78.8	131	
	nmol/l	131	98.3	164	Roche Cobas 6000/8000
	µg/dl	10.2	7.67	12.7	
	ng/ml	102	76.7	127	
	nmol/l	121	90.8	151	Immunotech IRMA
	µg/dl	9.44	7.08	11.8	
	ng/ml	94.4	70.8	118	
	nmol/l	158	119	198	Siemens Dimension
	µg/dl	12.3	9.28	15.3	
	ng/ml	123	92.8	153	
	nmol/l	156	117	195	Monobind Inc. ELISA / CLIA
	µg/dl	12.2	9.13	15.3	
	ng/ml	122	91.3	153	
Valproic Acid	µmol/l	552	442	662	Abbott AXSYM
	µg/ml	79.7	63.8	95.6	
	µmol/l	538	430	646	Abbott Architect
	µg/ml	77.6	62.0	93.2	
	µmol/l	587	470	704	Behring Emit
	µg/ml	84.7	67.8	102	
	µmol/l	545	436	654	Siemens Centaur XP/Classic
	µg/ml	78.6	62.9	94.3	
	µmol/l	554	443	665	Siemens Dimension
	µg/ml	79.9	63.9	95.9	
	µmol/l	544	435	653	Siemens Immulite 2000/2500
	µg/ml	78.5	62.8	94.2	
	µmol/l	559	447	671	Siemens Immulite 1000
	µg/ml	80.7	64.5	96.9	
	µmol/l	538	430	646	Roche Integra
	µg/ml	77.6	62.0	93.2	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Valproic Acid	µmol/l	542	434	650	Vitros
	µg/ml	78.2	62.6	93.8	
	µmol/l	555	444	666	Roche Modular P-D
	µg/ml	80.1	64.1	96.1	
	µmol/l	570	456	684	Roche Cobas E411
	µg/ml	82.3	65.8	98.8	
	µmol/l	565	452	678	Roche Cobas 6000/8000
	µg/ml	81.5	65.2	97.8	
	µmol/l	522	418	626	Beckman DxC
	µg/ml	75.3	60.3	90.3	
	µmol/l	576	461	691	Beckman AU400/600/640/2700/5400
	µg/ml	83.1	66.5	100	
	µmol/l	605	484	726	Siemens ADVIA 1200/1650/1800/2400
	µg/ml	87.3	69.8	105	
	µmol/l	638	510	765	Gravimetric
	µg/ml	92.0	73.6	110	
Vancomycin	µmol/l	8.12	6.50	9.74	Roche Integra
	µg/ml	12.1	9.66	14.5	
	µmol/l	6.56	5.25	7.87	Ortho Vitros Microslide Systems
	µg/ml	9.75	7.80	11.7	
	µmol/l	8.16	6.53	9.79	Abbott Architect
	µg/ml	12.1	9.70	14.5	
	µmol/l	5.94	4.63	7.25	Siemens Centaur XP/Classic
	µg/ml	8.83	6.89	10.8	
	µmol/l	7.17	5.74	8.60	Siemens Dimension
	µg/ml	10.7	8.53	12.9	
	µmol/l	7.67	6.14	9.20	Roche Cobas 6000/8000
	µg/ml	11.4	9.12	13.7	
	µmol/l	7.10	5.68	8.52	Gravimetric
	µg/ml	10.6	8.44	12.7	
Vitamin B12	pmol/l	422	338	506	Abbott Architect
	pg/ml	572	458	686	
	pmol/l	452	339	565	Siemens Centaur XP/Classic
	pg/ml	612	459	765	
	pmol/l	417	334	500	Siemens Immulite 2000
	pg/ml	565	453	677	
	pmol/l	376	301	451	Beckman DxI800
	pg/ml	509	408	610	
	pmol/l	419	335	503	Roche Elecsys
	pg/ml	568	454	682	
	pmol/l	432	346	518	Roche Modular E170
	pg/ml	585	469	701	
	pmol/l	386	309	463	Beckman Access
	pg/ml	523	419	627	
	pmol/l	528	422	634	Tosoh AIA360
	pg/ml	715	572	858	

RANDOX

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

Cat. No. IA3110 / IA3112 Lot No. 1477EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2017-10

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Vitamin B12	pmol/l	432	346	518	Vitros ECi
	pg/ml	585	469	701	
	pmol/l	439	351	527	MP Biomedicals RIA
	pg/ml	595	476	714	
	pmol/l	419	335	503	Roche Cobas E411
	pg/ml	568	454	682	
	pmol/l	423	338	508	Roche Cobas 6000/8000
	pg/ml	573	458	688	
	pmol/l	418	334	502	Siemens Dimension
	pg/ml	566	453	679	

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

Cat. No. IA3111 / IA3112

Lot No. 1508EC

Size: 12 x 5 ml / 12 x 5 ml

Expiry: 2018-04

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. Parathyroid Hormone (PTH) and 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 assayed within 4 hours of reconstitution, when stored at +2°C to +8°C. 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 3: 12 x 5 ml Tri-Level: 12 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 and 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.

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

08 Sep '15 ne

RANDOX

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
17-OH-Progesterone	nmol/l	24.8	18.6	31.0	Immunotech RIA
	ng/ml	8.21	6.16	10.3	
	nmol/l	37.5	28.1	46.9	DRG ELISA
	ng/ml	12.4	9.30	15.5	
	nmol/l	31.7	23.8	39.6	DIAsource RIA
	ng/ml	10.5	7.88	13.1	
	nmol/l	47.1	35.3	58.9	IBL ELISA
	ng/ml	15.6	11.7	19.5	
	nmol/l	31.5	23.6	39.4	MP Biomedicals RIA
	ng/ml	10.4	7.81	13.0	
25-OH Vitamin D	nmol/l	71.3	53.5	89.1	Diasorin Liaison
	nmol/l	98.5	73.9	123	Siemens Centaur XP/XPT/Classic
	nmol/l	60.0	45.0	75.0	Roche Vitamin D Total
	nmol/l	63.7	47.8	79.6	Abbott Architect
	nmol/l	81.3	61.0	102	Vitros ECi
	nmol/l	73.6	55.2	92.0	Tosoh AIA360
	nmol/l	71.4	53.6	89.3	BioMerieux Vidas
	nmol/l	62.4	46.8	78.0	Beckman DxI 600/800
	nmol/l	75.1	56.3	93.9	Fujirebio Lumipulse G
	nmol/l	72.0	54.0	90.0	Beckman Access 25 OH Vitamin D Total
ACTH	pmol/l	11.9	8.92	14.9	Siemens Immulite 2000/2500
	pg/ml	54.0	40.5	67.5	
	pmol/l	11.2	8.39	14.0	Roche Cobas 6000/8000
	pg/ml	50.8	38.1	63.5	
	pmol/l	13.9	10.4	17.4	Siemens Immulite 1000
	pg/ml	63.2	47.3	79.1	
Aldosterone	pmol/l	1102	827	1378	IDS iSYS
	pg/ml	398	298	498	
	pmol/l	974	731	1218	Diasorin Liaison
	pg/ml	351	264	438	
	pmol/l	1274	956	1593	Diasorin RIA
	pg/ml	460	345	575	
Alphafoetoprotein	KIU/l = IU/ml	187	150	224	Abbott Architect
	ng/ml	226	182	270	
	KIU/l = IU/ml	208	166	250	BioMerieux Vidas
	ng/ml	252	201	303	
	KIU/l = IU/ml	212	167	257	Siemens Centaur XP/XPT/Classic
	ng/ml	257	203	311	
	KIU/l = IU/ml	194	155	233	Siemens Immulite 2000/2500
	ng/ml	235	188	282	
	KIU/l = IU/ml	208	166	250	Siemens Immulite 1000
	ng/ml	252	201	303	

RANDOX

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Alphafoetoprotein	KIU/l = IU/ml	190	152	228	Beckman DxI800
	ng/ml	230	184	276	
	KIU/l = IU/ml	208	166	250	Roche Elecsys
	ng/ml	252	201	303	
	KIU/l = IU/ml	208	166	250	Diasorin Liaison
	ng/ml	252	201	303	
	KIU/l = IU/ml	211	169	253	Roche Modular E170
	ng/ml	255	204	306	
	KIU/l = IU/ml	196	157	235	Beckman Access
	ng/ml	237	190	284	
	KIU/l = IU/ml	186	149	223	Tosoh AIA360
	ng/ml	225	180	270	
	KIU/l = IU/ml	200	160	240	Vitros ECi
	ng/ml	242	194	290	
	KIU/l = IU/ml	188	150	226	Brahms Kryptor
	ng/ml	227	182	272	
	KIU/l = IU/ml	210	168	252	Roche Cobas 6000/8000
	ng/ml	254	203	305	
	KIU/l = IU/ml	260	208	312	CIS IRMA
	ng/ml	315	252	378	
	KIU/l = IU/ml	217	174	260	Roche Cobas E411
	ng/ml	263	211	315	
	KIU/l = IU/ml	206	165	247	Siemens Dimension
	ng/ml	249	200	298	
	KIU/l = IU/ml	203	160	246	Siemens Centaur CP
	ng/ml	246	194	298	
Amikacin	µmol/l	23.8	19.0	28.6	Roche Integra
	µg/ml	13.9	11.1	16.7	
	µmol/l	23.4	18.7	28.1	Roche Cobas 6000/8000
	µg/ml	13.7	11.0	16.4	
	µmol/l	24.1	19.3	28.9	Gravimetric
	µg/ml	14.1	11.3	16.9	
Androstenedione	nmol/l	30.5	22.9	38.1	Siemens Immulite 2000
	ng/ml	8.75	6.57	10.9	
Beta-2-microglobulin	µg/ml = mg/l	8.12	6.50	9.74	Abbott Architect
	µg/ml = mg/l	8.45	6.76	10.1	Beckman Immage
	µg/ml = mg/l	7.84	6.27	9.41	BioMerieux Vidas
	µg/ml = mg/l	7.94	6.35	9.53	Behring Nephelometer
	µg/ml = mg/l	7.48	5.98	8.98	Roche Tinaquant
	µg/ml = mg/l	6.27	5.02	7.52	Siemens Immulite 2000/2500
	µg/ml = mg/l	6.55	5.24	7.86	Siemens Immulite 1000
	µg/ml = mg/l	6.68	5.34	8.02	Diasorin Liaison
	µg/ml = mg/l	6.48	5.18	7.78	Tosoh AIA360
	µg/ml = mg/l	7.10	5.68	8.52	Roche Cobas E411
	µg/ml = mg/l	7.38	5.90	8.86	Roche Cobas 6000/8000
	µg/ml = mg/l	7.50	6.00	9.00	Roche Modular E170

RANDOX

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Beta-2-microglobulin	µg/ml = mg/l	7.92	6.34	9.50	Siemens Dimension
	µg/ml = mg/l	7.72	6.18	9.26	Siemens ADVIA 1200/1650/1800/2400
C-Peptide	nmol/l	1.580	1.190	1.980	Siemens Immulite 2000/2500
	ng/ml	4.77	3.59	5.95	
	nmol/l	1.770	1.330	2.210	Roche Elecsys
	ng/ml	5.34	4.02	6.66	
	nmol/l	2.000	1.500	2.500	Roche Cobas 6000/8000
	ng/ml	6.04	4.53	7.55	
	nmol/l	1.510	1.130	1.890	Siemens Immulite 1000
	ng/ml	4.56	3.41	5.71	
	nmol/l	2.340	1.760	2.930	Diasorin Liaison
	ng/ml	7.06	5.31	8.81	
	nmol/l	2.040	1.530	2.550	Roche Cobas E411
	ng/ml	6.16	4.62	7.70	
	nmol/l	1.810	1.360	2.260	Roche Modular E170
	ng/ml	5.46	4.11	6.81	
	nmol/l	1.470	1.100	1.840	Abbott Architect
	ng/ml	4.44	3.32	5.56	
	nmol/l	1.570	1.180	1.960	Siemens Centaur XP/XPT/Classic
	ng/ml	4.74	3.56	5.92	
	nmol/l	1.140	0.855	1.430	Tosoh AIA360
	ng/ml	3.44	2.58	4.30	
	nmol/l	1.520	1.140	1.900	Siemens Centaur CP
	ng/ml	4.59	3.44	5.74	
CA 15-3	U/ml	99.0	79.2	119	Abbott Architect
	U/ml	75.1	60.1	90.1	BioMerieux Vidas
	U/ml	87.5	60.4	115	Siemens Centaur XP/XPT/Classic
	U/ml	80.2	64.2	96.2	Siemens Immulite 2000/2500
	U/ml	90.9	72.7	109	Siemens Immulite 1000
	U/ml	36.0	28.8	43.2	Beckman DxI800
	U/ml	79.3	63.4	95.2	Roche Elecsys
	U/ml	91.9	73.5	110	Diasorin Liaison
	U/ml	80.2	64.2	96.2	Roche Modular E170
	U/ml	35.1	28.1	42.1	Beckman Access
	U/ml	95.9	76.7	115	Tosoh AIA360
	U/ml	79.0	63.2	94.8	Vitros ECi
	U/ml	80.2	64.2	96.2	Roche Cobas 6000/8000
	U/ml	80.5	64.4	96.6	Roche Cobas E411
	U/ml	94.0	64.9	123	Siemens Centaur CP
CA 19-9	U/ml	499	399	599	Abbott Architect
	U/ml	217	174	260	BioMerieux Vidas
	U/ml	203	140	266	Siemens Centaur XP/XPT/Classic
	U/ml	164	131	197	Siemens Immulite 2000/2500
	U/ml	148	118	178	Beckman DxI800
	U/ml	129	103	155	Roche Elecsys
	U/ml	191	153	229	Diasorin Liaison

RANDOX

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
CA 19-9	U/ml	133	106	160	Roche Modular E170
	U/ml	154	123	185	Beckman Access
	U/ml	101	80.8	121	Tosoh AIA360
	U/ml	277	222	332	Vitros ECi
	U/ml	500	400	600	Abbott Architect XR kit
	U/ml	131	105	157	Roche Cobas 6000/8000
	U/ml	128	102	154	Roche Cobas E411
	U/ml	197	136	258	Siemens Centaur CP
CA125	U/ml	281	225	337	Abbott Architect
	U/ml	218	174	262	BioMerieux Vidas
	U/ml	209	144	274	Siemens Centaur XP/XPT/Classic OV Kit
	U/ml	210	145	275	Siemens Centaur XP/XPT/Classic CA125 II kit
	U/ml	203	162	244	Siemens Immulite 2000/2500
	U/ml	219	175	263	Siemens Immulite 1000
	U/ml	172	138	206	Beckman DxI800
	U/ml	213	170	256	Roche Elecsys
	U/ml	278	222	334	Diasorin Liaison
	U/ml	212	170	254	Roche Modular E170
	U/ml	169	135	203	Beckman Access
	U/ml	371	297	445	Tosoh AIA360
	U/ml	218	174	262	Vitros ECi
	U/ml	211	169	253	Roche Cobas E411
	U/ml	212	170	254	Roche Cobas 6000/8000
	U/ml	223	154	292	Siemens Centaur CP CA125 II kit
Carbamazepine	µmol/l	65.4	52.3	78.5	Abbott AXSYM
	µg/ml	15.5	12.4	18.6	
	µmol/l	70.4	56.3	84.5	Abbott Architect
	µg/ml	16.6	13.3	19.9	
	µmol/l	73.3	58.6	88.0	Behring Emit
	µg/ml	17.3	13.9	20.7	
	µmol/l	72.0	44.6	99.4	Siemens Centaur XP/XPT/Classic
	µg/ml	17.0	10.5	23.5	
	µmol/l	69.4	55.5	83.3	Siemens Dimension
	µg/ml	16.4	13.1	19.7	
	µmol/l	61.8	49.4	74.2	Siemens Immulite 2000/2500
	µg/ml	14.6	11.7	17.5	
	µmol/l	66.7	53.4	80.0	Siemens Immulite 1000
	µg/ml	15.8	12.6	19.0	
	µmol/l	75.5	60.4	90.6	Roche Integra
	µg/ml	17.8	14.3	21.3	
	µmol/l	68.1	54.5	81.7	Vitros
	µg/ml	16.1	12.9	19.3	
	µmol/l	69.6	55.7	83.5	Roche Cobas E411
	µg/ml	16.5	13.2	19.8	
	µmol/l	70.5	56.4	84.6	Roche Cobas 6000/8000
	µg/ml	16.7	13.3	20.1	

RANDOX

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Carbamazepine	µmol/l	71.9	57.5	86.3	Roche Modular
	µg/ml	17.0	13.6	20.4	
	µmol/l	71.3	57.0	85.6	Beckman DxC
	µg/ml	16.9	13.5	20.3	
	µmol/l	72.0	57.6	86.4	Beckman AU400/600/640/2700/5400
	µg/ml	17.0	13.6	20.4	
	µmol/l	71.0	56.8	85.2	Siemens ADVIA 1200/1650/1800/2400
	µg/ml	16.8	13.4	20.2	
	µmol/l	76.0	47.1	105	Siemens Centaur CP
	µg/ml	18.0	11.2	24.8	
	µmol/l	72.2	57.8	86.6	Gravimetric
	µg/ml	17.1	13.7	20.5	
Carcinoembryonic Antigen (CEA)	ng/ml = µg/l	60.4	48.3	72.5	Abbott Architect
	ng/ml = µg/l	56.6	45.3	67.9	BioMerieux Vidas
	ng/ml = µg/l	63.9	44.1	83.7	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	50.8	40.6	61.0	CIS RIA Coated tube
	ng/ml = µg/l	76.1	60.9	91.3	Siemens Immulite 2000/2500
	ng/ml = µg/l	76.7	61.4	92.0	Siemens Immulite 1000
	ng/ml = µg/l	53.1	42.5	63.7	Beckman DxI800
	ng/ml = µg/l	50.2	40.2	60.2	Roche Elecsys
	ng/ml = µg/l	56.3	45.0	67.6	Diasorin Liaison
	ng/ml = µg/l	47.8	38.2	57.4	Roche Modular E170
	ng/ml = µg/l	55.5	44.4	66.6	Beckman Access
	ng/ml = µg/l	74.1	59.3	88.9	Tosoh AIA360
	ng/ml = µg/l	56.3	45.0	67.6	Vitros ECi
	ng/ml = µg/l	48.2	38.6	57.8	Roche Cobas 6000/8000
	ng/ml = µg/l	50.1	40.1	60.1	Roche Cobas E411
	ng/ml = µg/l	62.9	43.4	82.4	Siemens Centaur CP
Cortisol	nmol/l	821	616	1026	Abbott Architect
	µg/dl	29.6	22.2	37.0	
	nmol/l	951	713	1189	BioMerieux Vidas
	µg/dl	34.2	25.7	42.7	
	nmol/l	1062	733	1391	Siemens Centaur XP/XPT/Classic
	µg/dl	38.2	26.4	50.0	
	nmol/l	791	593	989	CIS RIA
	µg/dl	28.5	21.3	35.7	
	nmol/l	969	727	1211	Siemens Immulite 2000/2500
	µg/dl	34.9	26.2	43.6	
	nmol/l	1062	797	1328	Siemens Immulite 1000
	µg/dl	38.2	28.7	47.7	
	nmol/l	951	713	1189	Beckman DxI800
	µg/dl	34.2	25.7	42.7	
	nmol/l	1048	786	1310	Roche Elecsys
	µg/dl	37.7	28.3	47.1	
	nmol/l	1095	821	1369	Diasorin Liaison
	µg/dl	39.4	29.6	49.2	

RANDOX

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Cortisol	nmol/l	1064	798	1330	Roche Modular E170
	µg/dl	38.3	28.7	47.9	
	nmol/l	1024	768	1280	Beckman Access
	µg/dl	36.9	27.6	46.2	
	nmol/l	994	746	1243	Tosoh AIA360
	µg/dl	35.8	26.9	44.7	
	nmol/l	914	686	1143	Vitros ECi
	µg/dl	32.9	24.7	41.1	
	nmol/l	1058	794	1323	Roche Cobas 6000/8000
	µg/dl	38.1	28.6	47.6	
	nmol/l	1076	807	1345	Roche Cobas E411
	µg/dl	38.7	29.1	48.3	
	nmol/l	1103	827	1379	Monobind Inc. ELISA / CLIA
	µg/dl	39.7	29.8	49.6	
	nmol/l	645	484	806	Boditech Med Inc i-CHROMA
	µg/dl	23.2	17.4	29.0	
	nmol/l	1069	738	1400	Siemens Centaur CP
	µg/dl	38.5	26.6	50.4	
DHEA-S	µmol/l	24.0	19.2	28.8	Abbott Architect
	µmol/l	20.5	16.4	24.6	Siemens Immulite 2000/2500
	µmol/l	21.7	17.4	26.0	Siemens Immulite 1000
	µmol/l	19.9	15.9	23.9	Beckman DxI800
	µmol/l	29.6	23.7	35.5	Roche Elecsys
	µmol/l	28.1	22.5	33.7	Roche Modular E170
	µmol/l	21.2	17.0	25.4	Beckman Access
	µmol/l	18.8	15.0	22.6	Diasorin Liaison
	µmol/l	18.8	11.3	26.3	Siemens Centaur XP/XPT/Classic
	µmol/l	28.5	22.8	34.2	Roche Cobas E411
	µmol/l	27.3	21.8	32.8	Roche Cobas 6000/8000
	µmol/l	17.9	14.3	21.5	Immunotech RIA
Digoxin	nmol/l	4.79	3.83	5.75	Abbott AXSYM
	ng/ml	3.74	2.99	4.49	
	nmol/l	4.54	3.63	5.45	Abbott Architect
	ng/ml	3.55	2.84	4.26	
	nmol/l	4.82	3.86	5.78	Behring Emit
	ng/ml	3.76	3.01	4.51	
	nmol/l	5.17	4.14	6.20	BioMerieux Vidas
	ng/ml	4.04	3.23	4.85	
	nmol/l	5.52	4.31	6.73	Siemens Centaur XP/XPT/Classic
	ng/ml	4.31	3.36	5.26	
	nmol/l	5.33	4.26	6.40	Siemens Dimension
	ng/ml	4.16	3.33	4.99	
	nmol/l	5.80	4.64	6.96	Siemens Immulite 2000/2500
	ng/ml	4.53	3.62	5.44	
	nmol/l	6.08	4.86	7.30	Siemens Immulite 1000
	ng/ml	4.75	3.80	5.70	

RANDOX

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Digoxin	nmol/l	5.52	4.42	6.62	Beckman DxI800
	ng/ml	4.31	3.45	5.17	
	nmol/l	5.62	4.50	6.74	Roche Elecsys
	ng/ml	4.39	3.51	5.27	
	nmol/l	5.14	4.11	6.17	Roche Integra
	ng/ml	4.01	3.21	4.81	
	nmol/l	5.73	4.58	6.88	Roche Modular E170
	ng/ml	4.48	3.58	5.38	
	nmol/l	4.14	3.31	4.97	Beckman Synchron
	ng/ml	3.23	2.59	3.87	
	nmol/l	4.82	3.86	5.78	Vitros
	ng/ml	3.76	3.01	4.51	
	nmol/l	5.85	4.68	7.02	Roche Cobas E411
	ng/ml	4.57	3.66	5.48	
	nmol/l	5.88	4.70	7.06	Roche Cobas 6000/8000
	ng/ml	4.59	3.67	5.51	
	nmol/l	4.34	3.47	5.21	Beckman DxC
	ng/ml	3.39	2.71	4.07	
	nmol/l	5.42	4.34	6.50	Beckman AU400/600/640/2700/5400
	ng/ml	4.23	3.39	5.07	
	nmol/l	5.07	4.06	6.08	Siemens ADVIA 1200/1650/1800/2400
	ng/ml	3.96	3.17	4.75	
	nmol/l	5.26	4.21	6.31	Microgenics DRI assay
	ng/ml	4.11	3.29	4.93	
	nmol/l	5.12	4.10	6.14	Gravimetric
	ng/ml	4.00	3.20	4.80	
Ethosuximide	µmol/l	493	395	592	Gravimetric
	µg/ml	70.0	56.0	83.9	
Ferritin	ng/ml = µg/l	360	288	432	Abbott Architect
	ng/ml = µg/l	278	222	334	BioMerieux Vidas
	ng/ml = µg/l	284	227	341	Roche Tinaquant
	ng/ml = µg/l	295	230	360	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	290	232	348	Siemens Dimension
	ng/ml = µg/l	288	230	346	Siemens Immulite 2000/2500
	ng/ml = µg/l	267	214	320	Siemens Immulite 1000
	ng/ml = µg/l	225	180	270	Beckman DxI800
	ng/ml = µg/l	306	245	367	Roche Elecsys
	ng/ml = µg/l	337	270	404	Diasorin Liaison
	ng/ml = µg/l	307	246	368	Roche Modular E170
	ng/ml = µg/l	227	182	272	Beckman Access
	ng/ml = µg/l	229	183	275	Tosoh AIA360
	ng/ml = µg/l	213	170	256	Vitros ECi
	ng/ml = µg/l	297	238	356	Immunotech IRMA
	ng/ml = µg/l	301	241	361	Roche Cobas E411
	ng/ml = µg/l	237	190	284	Siemens/Dade Behring Nephelometer
	ng/ml = µg/l	267	214	320	Beckman AU400/600/640/2700/5400

RANDOX

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Ferritin	ng/ml = µg/l	278	217	339	Siemens Centaur CP
Folate	nmol/l	30.0	22.8	37.2	Abbott Architect
	ng/ml	13.2	10.1	16.3	
	nmol/l	49.8	29.9	69.7	Siemens Centaur XP/XPT/Classic (enhanced kit)
	ng/ml	22.0	13.2	30.8	
	nmol/l	32.1	24.4	39.8	Siemens Immulite 2000
	ng/ml	14.2	10.8	17.6	
	nmol/l	33.6	25.5	41.7	Beckman DxI800
	ng/ml	14.8	11.2	18.4	
	nmol/l	37.6	28.6	46.6	Roche Elecsys
	ng/ml	16.6	12.6	20.6	
	nmol/l	37.6	28.6	46.6	Roche Modular E170
	ng/ml	16.6	12.6	20.6	
	nmol/l	31.9	24.2	39.6	Beckman Access
	ng/ml	14.1	10.7	17.5	
	nmol/l	21.1	16.0	26.2	Vitros ECi
	ng/ml	9.31	7.06	11.6	
	nmol/l	37.8	28.7	46.9	Roche Cobas E411
	ng/ml	16.7	12.7	20.7	
	nmol/l	37.6	28.6	46.6	Roche Cobas 6000/8000
	ng/ml	16.6	12.6	20.6	
	nmol/l	22.6	17.2	28.0	Siemens Dimension
	ng/ml	9.97	7.59	12.4	
	nmol/l	48.5	29.1	67.9	Siemens Centaur CP (enhanced kit)
	ng/ml	21.4	12.8	30.0	
Free T3	pmol/l	27.6	20.7	34.5	Abbott Architect
	ng/dl	1.79	1.35	2.23	
	pg/ml	18.0	13.5	22.5	
	pmol/l	27.3	20.5	34.1	BioMerieux Vidas
	ng/dl	1.77	1.33	2.21	
	pg/ml	17.8	13.3	22.3	
	pmol/l	26.6	16.0	37.2	Siemens Centaur XP/XPT/Classic
	ng/dl	1.73	1.04	2.42	
	pg/ml	17.3	10.4	24.2	
	pmol/l	19.9	14.9	24.9	Siemens Immulite 2000/2500
	ng/dl	1.29	0.969	1.61	
	pg/ml	13.0	9.70	16.3	
	pmol/l	20.1	15.1	25.1	Siemens Immulite 1000
	ng/dl	1.31	0.982	1.64	
	pg/ml	13.1	9.83	16.4	
	pmol/l	23.7	17.8	29.6	Beckman DxI800
	ng/dl	1.54	1.16	1.92	
	pg/ml	15.4	11.6	19.2	
	pmol/l	33.9	25.4	42.4	Roche Elecsys
	ng/dl	2.20	1.65	2.75	
	pg/ml	22.1	16.5	27.7	

RANDOX

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Free T3	pmol/l	47.6	35.7	59.5	Diasorin Liaison
	ng/dl	3.09	2.32	3.86	
	pg/ml	31.0	23.2	38.8	
	pmol/l	34.0	25.5	42.5	Roche Modular E170
	ng/dl	2.21	1.66	2.76	
	pg/ml	22.1	16.6	27.6	
	pmol/l	24.9	18.7	31.1	Beckman Access
	ng/dl	1.62	1.22	2.02	
	pg/ml	16.2	12.2	20.2	
	pmol/l	47.8	35.9	59.8	Tosoh AIA360
	ng/dl	3.11	2.33	3.89	
	pg/ml	31.1	23.4	38.8	
	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	33.9	25.4	42.4	Roche Cobas E411
	ng/dl	2.20	1.65	2.75	
	pg/ml	22.1	16.5	27.7	
	pmol/l	34.1	25.6	42.6	Roche Cobas 6000/8000
	ng/dl	2.22	1.66	2.78	
	pg/ml	22.2	16.7	27.7	
	pmol/l	37.4	28.1	46.8	Siemens Dimension Vista LOCI
	ng/dl	2.43	1.83	3.03	
	pg/ml	24.3	18.3	30.3	
	pmol/l	25.3	15.2	35.4	Siemens Centaur CP
	ng/dl	1.64	0.984	2.30	
	pg/ml	16.5	9.90	23.1	
Free T4	pmol/l	58.0	43.5	72.5	Abbott Architect
	ng/dl	4.52	3.39	5.65	
	pg/ml	45.2	33.9	56.5	
	pmol/l	80.6	60.5	101	BioMerieux Vidas
	ng/dl	6.29	4.72	7.86	
	pg/ml	62.9	47.2	78.6	
	pmol/l	52.3	39.2	65.4	Siemens Centaur XP/XPT/Classic
	ng/dl	4.08	3.06	5.10	
	pg/ml	40.8	30.6	51.0	
	pmol/l	57.1	42.8	71.4	CIS RIA Coated tube
	ng/dl	4.45	3.34	5.56	
	pg/ml	44.5	33.4	55.6	
	pmol/l	72.1	54.1	90.1	Siemens Immulite 2000/2500
	ng/dl	5.62	4.22	7.02	
	pg/ml	56.2	42.2	70.2	
	pmol/l	72.0	54.0	90.0	Siemens Immulite 1000
	ng/dl	5.62	4.21	7.03	
	pg/ml	56.2	42.1	70.3	
	pmol/l	58.4	43.8	73.0	Beckman DxI800
	ng/dl	4.56	3.42	5.70	
	pg/ml	45.6	34.2	57.0	

RANDOX

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Free T4	pmol/l	80.1	60.1	100	Roche Elecsys
	ng/dl	6.25	4.69	7.81	
	pg/ml	62.5	46.9	78.1	
	pmol/l	112	84.0	140	Diasorin Liaison
	ng/dl	8.74	6.55	10.9	
	pg/ml	87.4	65.5	109	
	pmol/l	77.8	58.4	97.3	Roche Modular E170
	ng/dl	6.07	4.56	7.58	
	pg/ml	60.7	45.6	75.8	
	pmol/l	55.0	41.3	68.8	Beckman Access
	ng/dl	4.29	3.22	5.36	
	pg/ml	42.9	32.2	53.6	
	pmol/l	71.7	53.8	89.6	Tosoh AIA360
	ng/dl	5.59	4.20	6.98	
	pg/ml	55.9	42.0	69.8	
	pmol/l	89.9	67.4	112	Vitros ECi
	ng/dl	7.01	5.26	8.76	
	pg/ml	70.1	52.6	87.6	
	pmol/l	78.3	58.7	97.9	Roche Cobas 6000/8000
	ng/dl	6.11	4.58	7.64	
	pg/ml	61.1	45.8	76.4	
	pmol/l	54.0	40.5	67.5	Immunotech IRMA
	ng/dl	4.21	3.16	5.26	
	pg/ml	42.1	31.6	52.6	
	pmol/l	79.1	59.3	98.9	Roche Cobas E411
	ng/dl	6.17	4.63	7.71	
	pg/ml	61.7	46.3	77.1	
	pmol/l	62.5	46.9	78.1	Brahms RIA
	ng/dl	4.88	3.66	6.10	
	pg/ml	48.8	36.6	61.0	
	pmol/l	44.2	33.2	55.3	Monobind Inc. ELISA / CLIA
	ng/dl	3.45	2.59	4.31	
	pg/ml	34.5	25.9	43.1	
	pmol/l	91.6	68.7	115	Siemens Dimension Vista LOCI
	ng/dl	7.14	5.36	8.92	
	pg/ml	71.4	53.6	89.2	
	pmol/l	49.4	37.1	61.8	Adaltis EIAgen
	ng/dl	3.85	2.89	4.81	
	pg/ml	38.5	28.9	48.1	
	pmol/l	58.9	44.2	73.6	Siemens Centaur CP
	ng/dl	4.59	3.44	5.74	
	pg/ml	45.9	34.4	57.4	
FSH	mU/ml	50.9	40.7	61.1	Abbott Architect
	mU/ml	71.1	56.9	85.3	BioMerieux Vidas

RANDOX

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
FSH	mU/ml	74.3	58.0	90.6	Siemens Centaur XP/XPT/Classic
	mU/ml	59.4	47.5	71.3	Siemens Immulite 2000/2500
	mU/ml	55.4	44.3	66.5	Siemens Immulite 1000
	mU/ml	60.3	48.2	72.4	Beckman DxI800
	mU/ml	57.2	45.8	68.6	Roche/BM Elecsys
	mU/ml	66.5	53.2	79.8	Diasorin Liaison
	mU/ml	55.3	44.2	66.4	Roche Modular E170
	mU/ml	61.5	49.2	73.8	Beckman Access
	mU/ml	57.2	45.8	68.6	Tosoh AIA360
	mU/ml	45.4	36.3	54.5	Vitros ECi
	mU/ml	57.8	46.2	69.4	Roche Cobas E411
	mU/ml	55.5	44.4	66.6	Roche Cobas 6000/8000
	mU/ml	68.6	53.5	83.7	Siemens Centaur CP
Gentamicin	µmol/l	10.7	8.56	12.8	Roche Integra
	µg/ml	5.11	4.09	6.13	
	µmol/l	11.0	8.36	13.6	Siemens Centaur XP/XPT/Classic
	µg/ml	5.26	4.00	6.52	
	µmol/l	11.2	8.96	13.4	Siemens Dimension Vista
	µg/ml	5.35	4.28	6.42	
	µmol/l	8.67	6.94	10.4	Roche Cobas 6000/8000
	µg/ml	4.14	3.32	4.96	
	µmol/l	11.7	9.36	14.0	Gravimetric
	µg/ml	5.59	4.47	6.69	
Growth Hormone (GH)	µU/ml	45.6	36.5	54.7	CIS IRMA
	ng/ml	15.2	12.2	18.2	
	µU/ml	50.9	40.7	61.1	Siemens Immulite 2000/2500
	ng/ml	16.9	13.6	20.2	
	µU/ml	52.4	41.9	62.9	Siemens Immulite 1000
	ng/ml	17.4	14.0	20.8	
	µU/ml	44.0	35.2	52.8	Beckman DxI800
	ng/ml	14.7	11.7	17.7	
	µU/ml	77.7	62.2	93.2	Roche Modular E170
	ng/ml	25.9	20.7	31.1	
	µU/ml	45.5	36.4	54.6	Beckman Access
	ng/ml	15.2	12.1	18.3	
	µU/ml	54.9	43.9	65.9	Diasorin Liaison
	ng/ml	18.3	14.6	22.0	
	µU/ml	81.4	65.1	97.7	Roche Cobas E411
	ng/ml	27.1	21.7	32.5	
	µU/ml	77.9	62.3	93.5	Roche Cobas 6000/8000
	ng/ml	25.9	20.7	31.1	
	µU/ml	48.1	38.5	57.7	IDS iSYS
	ng/ml	16.0	12.8	19.2	
Immunoglobulin E	KIU/l = IU/ml	528	422	634	Abbott Architect
	KIU/l = IU/ml	464	371	557	BioMerieux Vidas
	KIU/l = IU/ml	403	242	564	Siemens Centaur XP/XPT/Classic

RANDOX

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Immunoglobulin E	KIU/l = IU/ml	490	392	588	Siemens Immulite 2000/2500
	KIU/l = IU/ml	492	394	590	Siemens Immulite 1000
	KIU/l = IU/ml	431	345	517	Beckman DxI800
	KIU/l = IU/ml	486	389	583	Roche Elecsys
	KIU/l = IU/ml	415	332	498	Pharmacia Unicap
	KIU/l = IU/ml	496	397	595	Roche Modular E170
	KIU/l = IU/ml	451	361	541	Beckman Access
	KIU/l = IU/ml	471	377	565	Tosoh AIA360
	KIU/l = IU/ml	487	390	584	Roche Cobas E411
	KIU/l = IU/ml	495	396	594	Roche Cobas 6000/8000
	KIU/l = IU/ml	445	356	534	Monobind Inc. ELISA / CLIA
	KIU/l = IU/ml	402	241	563	Siemens Centaur CP
	KIU/l = IU/ml	428	342	514	DSI EIA
Insulin	mU/l	30.5	22.9	38.1	Siemens Centaur XP/XPT/Classic
	mU/l	7.25	5.44	9.06	Siemens Immulite 1000
	mU/l	24.7	18.5	30.9	Roche Modular E170
	mU/l	8.14	6.11	10.2	Siemens Immulite 2000
	mU/l	24.7	18.5	30.9	Roche Elecsys
	mU/l	24.8	18.6	31.0	Beckman Access
	mU/l	22.3	16.7	27.9	Abbott Architect
	mU/l	26.0	19.5	32.5	CIS RIA Coated tube
	mU/l	30.7	23.0	38.4	Tosoh AIA360
	mU/l	24.7	18.5	30.9	Roche Cobas E411
	mU/l	22.8	17.1	28.5	Beckman DxI 600/800
	mU/l	27.5	20.6	34.4	Diasorin Liaison
	mU/l	25.0	18.8	31.3	Roche Cobas 6000/8000
	mU/l	32.9	24.7	41.1	Siemens Centaur CP
Luteinising Hormone (LH)	mU/ml	40.3	32.2	48.4	Abbott Architect
	mU/ml	45.5	36.4	54.6	BioMerieux Vidas
	mU/ml	52.4	40.3	64.5	Siemens Centaur XP/XPT/Classic
	mU/ml	62.1	49.7	74.5	Siemens Immulite 2000
	mU/ml	65.2	52.2	78.2	Siemens Immulite 1000
	mU/ml	27.7	22.2	33.2	Beckman DxI800
	mU/ml	49.6	39.7	59.5	Roche Elecsys
	mU/ml	61.5	49.2	73.8	Diasorin Liaison
	mU/ml	47.7	38.2	57.2	Roche Modular E170
	mU/ml	28.4	22.7	34.1	Beckman Access
	mU/ml	45.7	36.6	54.8	Tosoh AIA360
	mU/ml	57.6	46.1	69.1	Vitros ECi
	mU/ml	49.1	39.3	58.9	Roche Cobas E411
	mU/ml	48.3	38.6	58.0	Roche Cobas 6000/8000
	mU/ml	46.6	37.3	55.9	Boditech Med Inc i-CHROMA
	mU/ml	51.3	39.5	63.1	Siemens Centaur CP
Oestradiol	pmol/l	1162	930	1394	Abbott Architect
	pg/ml	316	253	379	
	pmol/l	2424	1939	2909	BioMerieux Vidas
	pg/ml	659	527	791	

RANDOX

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Oestradiol	pmol/l	2009	1246	2772	Siemens Centaur XP/XPT/Classic
	pg/ml	546	339	753	
	pmol/l	1990	1592	2388	Siemens Immulite 2000/2500
	pg/ml	541	433	649	
	pmol/l	2114	1691	2537	Siemens Immulite 1000
	pg/ml	575	460	690	
	pmol/l	1798	1438	2158	Beckman DxI800
	pg/ml	489	391	587	
	pmol/l	1522	1218	1826	Roche Elecsys (Estradiol II)
	pg/ml	414	331	497	
	pmol/l	1383	1106	1660	Roche Modular E170 (Estradiol II)
	pg/ml	376	301	451	
	pmol/l	1950	1560	2340	Beckman Access
	pg/ml	530	424	636	
	pmol/l	1479	1183	1775	Tosoh (E2)
	pg/ml	402	322	482	
	pmol/l	1917	1534	2300	Vitros ECi
	pg/ml	521	417	625	
	pmol/l	1406	1125	1687	Roche Cobas 6000/8000 (Estradiol II)
	pg/ml	382	306	458	
	pmol/l	1491	1193	1789	Roche Cobas 4000/E411 (Estradiol II)
	pg/ml	406	324	488	
	pmol/l	2021	1253	2789	Siemens Centaur XP/XPT/Classic Enhanced (eE2)
	pg/ml	550	341	759	
	pmol/l	1998	1239	2757	Siemens Centaur XP/XPT/Classic E26 III
	pg/ml	543	337	749	
	pmol/l	1462	1170	1754	Tosoh (iE2-hsE2)
	pg/ml	398	318	478	
	pmol/l	482	386	578	Immunotech RIA Ultra-sensitive
	pg/ml	131	105	157	
	pmol/l	2050	1271	2829	Siemens Centaur CP
	pg/ml	558	346	770	
	pmol/l	2234	1385	3083	Siemens Centaur CP Enhanced (eE2)
	pg/ml	608	377	839	
	pmol/l	2092	1674	2510	Fujirebio Lumipulse G
	pg/ml	569	455	683	
	pmol/l	1275	1020	1530	Roche Cobas 6000/8000 (Estradiol III)
	pg/ml	347	277	417	
	pmol/l	1204	963	1445	Roche Elecsys (Estradiol III)
	pg/ml	327	262	392	
	pmol/l	1291	1033	1549	Roche Cobas 4000/E411 (Estradiol III)
	pg/ml	351	281	421	
	pmol/l	1272	1018	1526	Roche Modular E170 (Estradiol III)
	pg/ml	346	277	415	
Paracetamol	mmol/l	0.457	0.366	0.548	Roche Integra
	mg/l	69.1	55.4	82.8	

%

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Paracetamol	mmol/l	0.620	0.496	0.744	Vitros
	mg/l	93.8	75.0	113	
	mmol/l	0.490	0.392	0.588	Abbott Architect
	mg/l	74.1	59.3	88.9	
	mmol/l	0.446	0.357	0.535	Roche Cobas 6000/8000
	mg/l	67.5	54.0	81.0	
	mmol/l	0.529	0.420	0.630	Gravimetric
	mg/l	80.0	63.5	95.3	
Parathyroid Hormone (PTH)	pmol/l	34.1	25.6	42.6	Siemens Centaur XP/XPT/Classic
	pg/ml	324	243	405	
	pmol/l	30.4	22.8	38.0	Siemens Immulite 2000
	pg/ml	289	217	361	
	pmol/l	18.0	13.5	22.5	Roche Elecsys PTH/PTH STAT
	pg/ml	171	128	214	
	pmol/l	17.9	13.4	22.4	Roche Modular E170 PTH/PTH STAT
	pg/ml	170	127	213	
	pmol/l	22.5	16.9	28.1	CIS IRMA
	pg/ml	214	160	268	
	pmol/l	41.0	30.8	51.3	Abbott Architect
	pg/ml	389	293	485	
	pmol/l	19.7	14.8	24.6	Roche Cobas 4000/e411 PTH/PTH STAT
	pg/ml	187	141	233	
	pmol/l	22.1	16.6	27.6	Beckman DxI800
	pg/ml	210	158	262	
	pmol/l	19.4	14.6	24.3	Roche Cobas 6000/8000 PTH/PTH STAT
	pg/ml	184	139	229	
	pmol/l	17.7	13.3	22.1	Roche Cobas 6000/8000 PTH (1-84)
	pg/ml	168	126	210	
	pmol/l	17.2	12.9	21.5	Roche Elecsys PTH (1-84)
	pg/ml	163	123	203	
	pmol/l	19.3	14.5	24.1	Roche Cobas 4000/E411 PTH (1-84)
	pg/ml	183	138	228	
	pmol/l	20.3	15.2	25.4	Roche Modular E170 PTH (1-84)
	pg/ml	193	144	242	
	pmol/l	35.2	26.4	44.0	Diasorin Liaison N-TACT PTH II
	pg/ml	334	251	417	
Phenobarbital	µmol/l	124	99.0	149	Abbott Architect
	µg/ml	28.8	23.0	34.6	
	µmol/l	126	101	151	Siemens Immulite 2000/2500
	µg/ml	29.2	23.4	35.0	
	µmol/l	122	97.6	146	Roche Modular P-D
	µg/ml	28.3	22.6	34.0	
	µmol/l	123	98.4	148	Beckman AU400/600/640/2700/5400
	µg/ml	28.5	22.8	34.2	
	µmol/l	140	102	178	Siemens Centaur XP/XPT/Classic
	µg/ml	32.5	23.7	41.3	

%

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Phenobarbital	µmol/l	118	94.4	142	Roche Integra
	µg/ml	27.4	21.9	32.9	
	µmol/l	121	96.8	145	Siemens Immulite 1000
	µg/ml	28.1	22.5	33.7	
	µmol/l	119	95.2	143	Beckman DxC
	µg/ml	27.6	22.1	33.1	
	µmol/l	121	96.6	145	Gravimetric
	µg/ml	28.0	22.4	33.6	
Phenytoin	µmol/l	92.7	74.2	111	Abbott Architect
	µg/ml	23.4	18.7	28.1	
	µmol/l	112	87.4	137	Siemens Centaur XP/XPT/Classic
	µg/ml	28.3	22.1	34.5	
	µmol/l	99.0	79.2	119	Siemens Dimension
	µg/ml	25.0	20.0	30.0	
	µmol/l	99.0	79.2	119	Siemens Immulite 2000/2500
	µg/ml	25.0	20.0	30.0	
	µmol/l	90.4	72.3	108	Siemens Immulite 1000
	µg/ml	22.8	18.3	27.3	
	µmol/l	99.0	79.2	119	Hitachi 911/912/917
	µg/ml	25.0	20.0	30.0	
	µmol/l	90.8	72.6	109	Roche Integra
	µg/ml	22.9	18.3	27.5	
	µmol/l	91.0	72.8	109	Vitros
	µg/ml	23.0	18.4	27.6	
	µmol/l	101	80.8	121	Roche Modular P-D
	µg/ml	25.5	20.4	30.6	
	µmol/l	95.6	76.5	115	Roche Cobas E411
	µg/ml	24.1	19.3	28.9	
	µmol/l	93.1	74.5	112	Roche Cobas 6000/8000
	µg/ml	23.5	18.8	28.2	
	µmol/l	90.9	72.7	109	Beckman DxC
	µg/ml	23.0	18.4	27.6	
	µmol/l	110	85.8	134	Siemens Centaur CP
	µg/ml	27.8	21.7	33.9	
	µmol/l	99.8	79.8	120	Gravimetric
	µg/ml	25.2	20.1	30.3	
Primidone	µmol/l	32.7	26.2	39.3	Gravimetric
	µg/ml	7.14	5.72	8.58	
Progesterone	nmol/l	112	89.6	134	Abbott Architect
	ng/ml	35.1	28.0	42.2	
	nmol/l	173	138	208	BioMerieux Vidas
	ng/ml	54.1	43.2	65.0	
	nmol/l	92.3	65.5	119	Siemens Centaur XP/XPT/Classic
	ng/ml	28.9	20.5	37.3	
	nmol/l	90.2	72.2	108	Siemens Immulite 2000/2500
	ng/ml	28.2	22.6	33.8	

%

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Progesterone	nmol/l	100	80.0	120	Siemens Immulite 1000
	ng/ml	31.3	25.0	37.6	
	nmol/l	117	93.6	140	Beckman DxI Prog Cal 33555
	ng/ml	36.6	29.3	43.9	
	nmol/l	140	112	168	Roche Elecsys
	ng/ml	43.8	35.1	52.5	
	nmol/l	139	111	167	Roche Modular E170
	ng/ml	43.5	34.7	52.3	
	nmol/l	117	93.6	140	Beckman Access Prog Cal 33555
	ng/ml	36.6	29.3	43.9	
	nmol/l	119	95.2	143	Vitros ECi
	ng/ml	37.2	29.8	44.6	
	nmol/l	143	114	172	Roche Cobas E411
	ng/ml	44.8	35.7	53.9	
	nmol/l	141	113	169	Roche Cobas 6000/8000
	ng/ml	44.1	35.4	52.8	
	nmol/l	89.2	71.4	107	Diasorin Liaison
	ng/ml	27.9	22.3	33.5	
	nmol/l	111	88.8	133	Immunotech RIA
	ng/ml	34.7	27.8	41.6	
	nmol/l	110	88.0	132	Beckman DxI Prog DE Cal A80773
	ng/ml	34.4	27.5	41.3	
	nmol/l	103	73.1	133	Siemens Centaur CP
	ng/ml	32.2	22.9	41.5	
Prolactin	µU/ml	1003	802	1204	Abbott Architect
	µU/ml	536	429	643	BioMerieux Vidas
	µU/ml	765	574	956	Siemens Centaur XP/XPT/Classic
	µU/ml	1039	831	1247	Siemens Immulite 2000/2500
	µU/ml	1051	841	1261	Siemens Immulite 1000
	µU/ml	634	507	761	Beckman DxI800
	µU/ml	1232	986	1478	Roche Elecsys
	µU/ml	1058	846	1270	Diasorin Liaison
	µU/ml	1213	970	1456	Roche Modular E170
	µU/ml	683	546	820	Beckman Access
	µU/ml	177	142	212	Tosoh AIA360
	µU/ml	620	496	744	Vitros ECi
	µU/ml	1226	981	1471	Roche Elecsys/E170/Cobas 6000/8000 PRLII
	µU/ml	925	740	1110	Immunotech IRMA
	µU/ml	1234	987	1481	Roche Cobas E411
	µU/ml	1210	968	1452	Roche Cobas 6000/8000
	µU/ml	922	738	1106	Adaltis EIAgen
	µU/ml	988	790	1186	Abbott Architect restandardised
	µU/ml	756	567	945	Siemens Centaur CP
PSA Free	ng/ml = µg/l	20.8	15.6	26.0	Abbott Architect
	ng/ml = µg/l	18.7	14.0	23.4	Siemens Centaur XP/XPT/Classic

%

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
PSA Free	ng/ml = µg/l	16.1	12.1	20.1	Siemens Dimension
	ng/ml = µg/l	16.2	12.2	20.3	Siemens Immulite 2000/2500
	ng/ml = µg/l	16.6	12.5	20.8	Siemens Immulite 1000
	ng/ml = µg/l	24.9	18.7	31.1	Beckman DXI standardised to Hybritech
	ng/ml = µg/l	19.0	14.3	23.8	Roche Elecsys
	ng/ml = µg/l	11.4	8.55	14.3	Diasorin Liaison
	ng/ml = µg/l	18.6	14.0	23.3	Roche Modular E170
	ng/ml = µg/l	24.9	18.7	31.1	Beckman Access standardised to Hybritech
	ng/ml = µg/l	18.1	13.6	22.6	Tosoh AIA360
	ng/ml = µg/l	19.3	14.5	24.1	Roche Cobas E411
	ng/ml = µg/l	18.6	14.0	23.3	Roche Cobas 6000/8000
	ng/ml = µg/l	25.8	19.4	32.3	Beckman DxI800 standardised to WHO IRP96/670
	ng/ml = µg/l	20.6	15.5	25.8	Beckman Access standardised to WHO IRP96/670
	ng/ml = µg/l	15.9	11.9	19.9	Ortho Vitros 3600/5600/ECi PSA II
	ng/ml = µg/l	16.1	12.1	20.1	Fujirebio Lumipulse G
PSA Total	ng/ml = µg/l	26.2	19.7	32.8	Abbott Architect
	ng/ml = µg/l	23.8	17.9	29.8	BioMerieux Vidas
	ng/ml = µg/l	24.8	18.6	31.0	bioMerieux VIDAS TPSA
	ng/ml = µg/l	25.3	19.0	31.6	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	20.3	15.2	25.4	Siemens Immulite 2000/2500 1st generation
	ng/ml = µg/l	19.1	14.3	23.9	Siemens Immulite 1000 3rd generation
	ng/ml = µg/l	19.2	14.4	24.0	Siemens Immulite 2000/2500 3rd generation
	ng/ml = µg/l	20.1	15.1	25.1	Siemens Immulite 1000 1st generation
	ng/ml = µg/l	29.3	22.0	36.6	Beckman DxI standardisd to Hybritech
	ng/ml = µg/l	25.1	18.8	31.4	Beckman DxI800 standardised to WHO IRP96/670
	ng/ml = µg/l	31.7	23.8	39.6	Roche Elecsys
	ng/ml = µg/l	16.5	12.4	20.6	Diasorin Liaison
	ng/ml = µg/l	31.9	23.9	39.9	Roche Modular E170
	ng/ml = µg/l	29.0	21.8	36.3	Beckman Access standardised to Hybritech
	ng/ml = µg/l	28.6	21.5	35.8	Beckman Access standardised to WHO IRP96/670
	ng/ml = µg/l	17.9	13.4	22.4	Tosoh AIA360
	ng/ml = µg/l	25.4	19.1	31.8	CIS RIA Coated tube
	ng/ml = µg/l	32.5	24.4	40.6	Roche Cobas E411
	ng/ml = µg/l	31.9	23.9	39.9	Roche Cobas 6000/8000
	ng/ml = µg/l	25.3	19.0	31.6	Fujirebio Lumipulse G
	ng/ml = µg/l	32.2	24.2	40.3	Ortho Vitros 3600/5600/ECi PSA II
	ng/ml = µg/l	25.4	19.1	31.7	Siemens Centaur CP
Salicylic Acid	mmol/l	2.80	2.24	3.36	Roche Integra
	mg/dl	38.7	30.9	46.5	
	mmol/l	2.93	2.34	3.52	Abbott Architect
	mg/dl	40.5	32.3	48.7	
	mmol/l	3.09	2.47	3.71	Beckman DxC
	mg/dl	42.7	34.1	51.3	
	mmol/l	2.88	2.30	3.45	Gravimetric
	mg/dl	39.7	31.8	47.7	
SHBG	nmol/l	53.0	42.4	63.6	Siemens Centaur XP/XPT/Classic

%

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
SHBG	nmol/l	40.0	32.0	48.0	Siemens Immulite 1000
	nmol/l	39.9	31.9	47.9	Siemens Immulite 2000/2500
	nmol/l	40.7	32.6	48.8	Roche Elecsys
	nmol/l	39.6	31.7	47.5	Roche Modular E170
	nmol/l	43.1	34.5	51.7	Abbott Architect
	nmol/l	40.7	32.6	48.8	Roche Cobas E411
	nmol/l	39.4	31.5	47.3	Roche Cobas 6000/8000
	nmol/l	41.2	33.0	49.4	Beckman Access
	nmol/l	39.1	31.3	46.9	Beckman DxI800
T Uptake	%U	40.5	33.2	47.8	Siemens Immulite 2000
Testosterone	nmol/l	27.4	21.9	32.9	Abbott Architect
	ng/ml	7.89	6.31	9.47	
	ng/dl	789	631	947	
	nmol/l	23.3	18.6	28.0	BioMerieux Vidas
	ng/ml	6.71	5.36	8.06	
	ng/dl	671	536	806	
	nmol/l	24.8	18.1	31.5	Siemens Centaur XP/XPT/Classic
	ng/ml	7.14	5.21	9.07	
	ng/dl	714	521	907	
	nmol/l	27.9	22.3	33.5	CIS RIA Coated tube
	ng/ml	8.04	6.42	9.66	
	ng/dl	804	642	966	
	nmol/l	37.1	29.7	44.5	Siemens Immulite 2000/2500
	ng/ml	10.7	8.55	12.9	
	ng/dl	1068	855	1281	
	nmol/l	49.6	39.7	59.5	Siemens Immulite 1000
	ng/ml	14.3	11.4	17.2	
	ng/dl	1428	1143	1713	
	nmol/l	21.7	17.4	26.0	Beckman DxI800
	ng/ml	6.25	5.01	7.49	
	ng/dl	625	501	749	
	nmol/l	24.4	19.5	29.3	Beckman Access
	ng/ml	7.03	5.62	8.44	
	ng/dl	703	562	844	
	nmol/l	37.4	29.9	44.9	Tosoh AIA360
	ng/ml	10.8	8.61	13.0	
	ng/dl	1077	861	1293	
	nmol/l	37.7	30.2	45.2	Vitros ECi
	ng/ml	10.9	8.70	13.1	
	ng/dl	1086	870	1302	
	nmol/l	28.4	22.7	34.1	Roche Cobas 6000 Test 2
	ng/ml	8.18	6.54	9.82	
	ng/dl	818	654	982	
	nmol/l	27.2	21.8	32.6	Roche Elecsys Test II
	ng/ml	7.83	6.28	9.38	
	ng/dl	783	628	938	

%

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Testosterone	nmol/l	28.2	22.6	33.8	Roche Modular E170 Test II
	ng/ml	8.12	6.51	9.73	
	ng/dl	812	651	973	
	nmol/l	28.0	22.4	33.6	Roche Cobas 4000/e411 Test II
	ng/ml	8.06	6.45	9.67	
	ng/dl	806	645	967	
	nmol/l	27.0	21.6	32.4	Abbott Architect 2nd Generation
	ng/ml	7.78	6.22	9.34	
	ng/dl	778	622	934	
	nmol/l	27.7	22.2	33.2	Boditech Med Inc i-CHROMA
	ng/ml	7.98	6.39	9.57	
	ng/dl	798	639	957	
	nmol/l	24.5	17.9	31.1	Siemens Centaur CP
	ng/ml	7.06	5.15	8.97	
	ng/dl	706	515	897	
	nmol/l	23.2	18.6	27.8	BioMerieux Vidas Testosterone II
	ng/ml	6.68	5.36	8.00	
	ng/dl	668	536	800	
Theophylline	µmol/l	154	123	185	Abbott AXSYM
	µg/ml	27.8	22.2	33.4	
	µmol/l	142	114	170	Siemens Centaur XP/XPT/Classic
	µg/ml	25.6	20.5	30.7	
	µmol/l	157	126	188	Siemens Dimension
	µg/ml	28.3	22.7	33.9	
	µmol/l	135	108	162	Siemens Immulite 2000/2500
	µg/ml	24.3	19.5	29.1	
	µmol/l	160	128	192	Roche Integra
	µg/ml	28.8	23.1	34.5	
	µmol/l	205	164	246	Vitros
	µg/ml	36.9	29.6	44.2	
	µmol/l	156	125	187	Abbott Architect
	µg/ml	28.1	22.5	33.7	
	µmol/l	160	128	192	Roche Cobas 6000/8000
	µg/ml	28.8	23.1	34.5	
	µmol/l	150	120	180	Beckman DxC
	µg/ml	27.0	21.6	32.4	
	µmol/l	154	123	185	Beckman AU400/600/640/2700/5400
	µg/ml	27.8	22.2	33.4	
	µmol/l	166	133	200	Gravimetric
	µg/ml	30.0	24.0	36.0	
Thyroglobulin	ng/ml	38.3	28.7	47.9	Siemens Immulite 1000
	ng/ml	33.3	25.0	41.6	Siemens Immulite 2000
	ng/ml	59.5	44.6	74.4	Roche Elecsys
	ng/ml	63.2	47.4	79.0	Roche Modular E170
	ng/ml	62.0	46.5	77.5	Beckman DxI800
	ng/ml	63.1	47.3	78.9	Roche Cobas E411

%

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Thyroglobulin	ng/ml	62.7	47.0	78.4	Roche Cobas 6000/8000
	ng/ml	57.7	43.3	72.1	Beckman Access
	ng/ml	67.7	50.8	84.6	Tosoh AIA360
	ng/ml	62.4	46.8	78.0	Roche Cobas 6000 TGII
	ng/ml	60.4	45.3	75.5	Roche Elecsys TGII
	ng/ml	62.7	47.0	78.4	Roche Cobas 4000/E411 TGII
	ng/ml	63.7	47.8	79.6	Roche Modular E170 TGII
Thyroid Stimulating Hormone	µU/ml = mIU/l	17.5	14.0	21.0	Abbott Architect
	µU/ml = mIU/l	19.9	15.9	23.9	bioMerieux VIDAS TSH
	µU/ml = mIU/l	15.4	12.3	18.5	bioMerieux VIDAS TSH3 Ultrasensitive
	µU/ml = mIU/l	20.8	14.1	27.5	Siemens Centaur XP/XPT/Classic
	µU/ml = mIU/l	20.3	16.2	24.4	CIS IRMA
	µU/ml = mIU/l	20.5	13.9	27.1	Siemens Centaur XP/XPT/Classic 3rd Generation
	µU/ml = mIU/l	18.8	15.0	22.6	Siemens Dimension
	µU/ml = mIU/l	19.5	15.6	23.4	Siemens Immulite 2000/2500
	µU/ml = mIU/l	19.6	15.7	23.5	Siemens Immulite 1000
	µU/ml = mIU/l	18.7	15.0	22.4	Beckman DxI800 Fast TSH
	µU/ml = mIU/l	19.5	15.6	23.4	Beckman DxI800
	µU/ml = mIU/l	20.0	16.0	24.0	Roche Elecsys
	µU/ml = mIU/l	23.6	18.9	28.3	Diasorin Liaison
	µU/ml = mIU/l	19.9	15.9	23.9	Roche Modular E170
	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	20.7	16.6	24.8	Tosoh AIA360
	µU/ml = mIU/l	26.2	21.0	31.4	Vitros ECi
	µU/ml = mIU/l	19.9	15.9	23.9	Beckman Coulter AU3000i
	µU/ml = mIU/l	21.5	17.2	25.8	Immunotech IRMA
	µU/ml = mIU/l	20.2	16.2	24.2	Roche Cobas E411
	µU/ml = mIU/l	20.0	16.0	24.0	Roche Cobas 6000/8000
	µU/ml = mIU/l	19.1	15.3	22.9	Beckman DxI800 Hyper TSH
	µU/ml = mIU/l	19.4	15.5	23.3	Monobind Inc. ELISA / CLIA
	µU/ml = mIU/l	18.7	15.0	22.4	Siemens Dimension Vista LOCI
	µU/ml = mIU/l	20.7	14.1	27.3	Siemens Centaur XP/XPT/Classic TSH3-Ultra
	µU/ml = mIU/l	24.2	19.4	29.0	Adaltis EIAgen
	µU/ml = mIU/l	20.5	13.9	27.1	Siemens Centaur CP
	µU/ml = mIU/l	19.8	13.5	26.1	Siemens Centaur CP TSH3-Ultra
Tobramycin	µmol/l	10.3	8.21	12.3	Gravimetric
	µg/ml	4.80	3.84	5.76	
Total Beta hCG	mU/ml=IU/l	318	254	382	Abbott Architect
	IU/ml	0.318	0.254	0.382	
	mU/ml=IU/l	609	487	731	BioMerieux Vidas
	IU/ml	0.609	0.487	0.731	
	mU/ml=IU/l	297	178	416	Siemens Centaur XP/XPT/Classic
	IU/ml	0.297	0.178	0.416	
	mU/ml=IU/l	569	455	683	Siemens Dimension
	IU/ml	0.569	0.455	0.683	

%

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Total Beta hCG	mU/ml=IU/l	598	478	718	Siemens Immulite 2000
	IU/ml	0.598	0.478	0.718	
	mU/ml=IU/l	595	476	714	Siemens Immulite 1000
	IU/ml	0.595	0.476	0.714	
	mU/ml=IU/l	302	242	362	Beckman DxI800
	IU/ml	0.302	0.242	0.362	
	mU/ml=IU/l	306	245	367	Diasorin Liaison
	IU/ml	0.306	0.245	0.367	
	mU/ml=IU/l	360	288	432	Roche Cobas Core EIA
	IU/ml	0.360	0.288	0.432	
	mU/ml=IU/l	273	218	328	Beckman Access
	IU/ml	0.273	0.218	0.328	
	mU/ml=IU/l	547	438	656	Tosoh AIA360
	IU/ml	0.547	0.438	0.656	
	mU/ml=IU/l	582	466	698	Vitros ECi
	IU/ml	0.582	0.466	0.698	
	mU/ml=IU/l	494	395	593	Roche STAT (Intact)
	IU/ml	0.494	0.395	0.593	
	mU/ml=IU/l	364	291	437	Roche hCG+Beta
	IU/ml	0.364	0.291	0.437	
	mU/ml=IU/l	601	481	721	Brahms Kryptor
	IU/ml	0.601	0.481	0.721	
	mU/ml=IU/l	313	250	376	Radiometer AQT90 Flex
	IU/ml	0.313	0.250	0.376	
	mU/ml=IU/l	290	232	348	Beckman Access Total BhCG (5th IS)
	IU/ml	0.290	0.232	0.348	
	mU/ml=IU/l	309	247	371	Beckman DxI Total BhCG (5th IS)
	IU/ml	0.309	0.247	0.371	
	mU/ml=IU/l	284	170	398	Siemens Centaur CP
	IU/ml	0.284	0.170	0.398	
Total Estriol	nmol/l	15.9	11.9	19.9	Siemens Immulite 2000
	nmol/l	16.0	12.0	20.0	Siemens Immulite 1000
Total T3	nmol/l	5.69	4.27	7.11	Abbott Architect
	ng/ml	3.70	2.78	4.62	
	ng/dl	370	278	462	
	nmol/l	6.74	5.06	8.43	BioMerieux Vidas
	ng/ml	4.39	3.29	5.49	
	ng/dl	439	329	549	
	nmol/l	10.4	7.80	13.0	Siemens Centaur XP/XPT/Classic
	ng/ml	6.77	5.08	8.46	
	ng/dl	677	508	846	
	nmol/l	6.95	5.21	8.69	Siemens Immulite 2000/2500
	ng/ml	4.52	3.39	5.65	
	ng/dl	452	339	565	
	nmol/l	7.49	5.62	9.36	Siemens Immulite 1000
	ng/ml	4.88	3.66	6.10	
	ng/dl	488	366	610	

%

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Total T3	nmol/l	6.31	4.73	7.89	Beckman DxI800
	ng/ml	4.11	3.08	5.14	
	ng/dl	411	308	514	
	nmol/l	7.11	5.33	8.89	Roche Elecsys
	ng/ml	4.63	3.47	5.79	
	ng/dl	463	347	579	
	nmol/l	7.20	5.40	9.00	Diasorin Liaison
	ng/ml	4.69	3.52	5.86	
	ng/dl	469	352	586	
	nmol/l	6.96	5.22	8.70	Roche Modular E170
	ng/ml	4.53	3.40	5.66	
	ng/dl	453	340	566	
	nmol/l	6.35	4.76	7.94	Beckman Access
	ng/ml	4.13	3.10	5.16	
	ng/dl	413	310	516	
	nmol/l	6.78	5.09	8.48	Tosoh AIA360
	ng/ml	4.41	3.31	5.51	
	ng/dl	441	331	551	
	nmol/l	8.42	6.32	10.5	Vitros ECi
	ng/ml	5.48	4.11	6.85	
	ng/dl	548	411	685	
	nmol/l	5.53	4.15	6.91	CIS RIA Coated tube
	ng/ml	3.60	2.70	4.50	
	ng/dl	360	270	450	
	nmol/l	7.30	5.48	9.13	Roche Cobas E411
	ng/ml	4.75	3.57	5.93	
	ng/dl	475	357	593	
	nmol/l	6.94	5.21	8.68	Roche Cobas 6000/8000
	ng/ml	4.52	3.39	5.65	
	ng/dl	452	339	565	
	nmol/l	6.68	5.01	8.35	Monobind Inc. ELISA / CLIA
	ng/ml	4.35	3.26	5.44	
	ng/dl	435	326	544	
	nmol/l	11.1	8.33	13.9	Siemens Centaur CP
	ng/ml	7.23	5.42	9.04	
	ng/dl	723	542	904	
Total T4	nmol/l	223	167	279	Abbott Architect
	µg/dl	17.4	13.0	21.8	
	ng/ml	174	130	218	
	nmol/l	228	171	285	BioMerieux Vidas
	µg/dl	17.8	13.3	22.3	
	ng/ml	178	133	223	
	nmol/l	220	154	286	Siemens Centaur XP/XPT/Classic
	µg/dl	17.2	12.0	22.4	
	ng/ml	172	120	224	

%

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Total T4	nmol/l	198	149	248	Siemens Immulite 2000/2500
	µg/dl	15.4	11.6	19.2	
	ng/ml	154	116	192	
	nmol/l	206	155	258	Siemens Immulite 1000
	µg/dl	16.1	12.1	20.1	
	ng/ml	161	121	201	
	nmol/l	214	161	268	Beckman DxI800
	µg/dl	16.7	12.6	20.8	
	ng/ml	167	126	208	
	nmol/l	178	134	223	Roche Elecsys
	µg/dl	13.9	10.5	17.3	
	ng/ml	139	105	173	
	nmol/l	196	147	245	Diasorin Liaison
	µg/dl	15.3	11.5	19.1	
	ng/ml	153	115	191	
	nmol/l	175	131	219	Roche Modular E170
	µg/dl	13.7	10.2	17.2	
	ng/ml	137	102	172	
	nmol/l	215	161	269	Beckman Access
	µg/dl	16.8	12.6	21.0	
	ng/ml	168	126	210	
	nmol/l	175	131	219	Tosoh AIA360
	µg/dl	13.7	10.2	17.2	
	ng/ml	137	102	172	
	nmol/l	217	163	271	Vitros ECi
	µg/dl	16.9	12.7	21.1	
	ng/ml	169	127	211	
	nmol/l	203	152	254	MP Biomedicals RIA
	µg/dl	15.8	11.9	19.7	
	ng/ml	158	119	197	
	nmol/l	193	145	241	CIS RIA Coated tube
	µg/dl	15.1	11.3	18.9	
	ng/ml	151	113	189	
	nmol/l	180	135	225	Roche Cobas E411
	µg/dl	14.0	10.5	17.5	
	ng/ml	140	105	175	
	nmol/l	179	134	224	Roche Cobas 6000/8000
	µg/dl	14.0	10.5	17.5	
	ng/ml	140	105	175	
	nmol/l	168	126	210	Immunotech IRMA
	µg/dl	13.1	9.83	16.4	
	ng/ml	131	98.3	164	
	nmol/l	81.8	61.4	102	ELISA
	µg/dl	6.38	4.79	7.97	
	ng/ml	63.8	47.9	79.7	
	nmol/l	221	166	276	Monobind Inc. ELISA / CLIA
	µg/dl	17.2	12.9	21.5	
	ng/ml	172	129	215	

%

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Total T4	nmol/l	233	163	303	Siemens Centaur CP
	µg/dl	18.2	12.7	23.7	
	ng/ml	182	127	237	
Valproic Acid	µmol/l	885	708	1062	Abbott AXSYM
	µg/ml	128	102	154	
	µmol/l	946	757	1135	Abbott Architect
	µg/ml	137	109	165	
	µmol/l	1007	806	1208	Behring Emit
	µg/ml	145	116	174	
	µmol/l	920	736	1104	Siemens Centaur XP/XPT/Classic
	µg/ml	133	106	160	
	µmol/l	929	743	1115	Siemens Dimension
	µg/ml	134	107	161	
	µmol/l	993	794	1192	Siemens Immulite 2000/2500
	µg/ml	143	115	171	
	µmol/l	1001	801	1201	Siemens Immulite 1000
	µg/ml	144	116	172	
	µmol/l	1016	813	1219	Hitachi 911/912/917
	µg/ml	147	117	177	
	µmol/l	949	759	1139	Roche Integra
	µg/ml	137	110	164	
	µmol/l	942	754	1130	Vitros
	µg/ml	136	109	163	
	µmol/l	878	702	1054	Roche Modular P-D
	µg/ml	127	101	153	
	µmol/l	1110	888	1332	Roche Cobas E411
	µg/ml	160	128	192	
	µmol/l	975	780	1170	Roche Cobas 6000/8000
	µg/ml	141	113	169	
	µmol/l	896	717	1075	Beckman DxC
	µg/ml	129	103	155	
	µmol/l	1047	838	1256	Beckman AU400/600/640/2700/5400
	µg/ml	151	121	181	
	µmol/l	961	769	1153	Siemens ADVIA 1200/1650/1800/2400
	µg/ml	139	111	167	
	µmol/l	998	798	1198	Siemens Centaur CP
	µg/ml	144	115	173	
	µmol/l	1116	893	1339	Gravimetric
	µg/ml	161	129	193	
Vancomycin	µmol/l	12.1	9.68	14.5	Roche Integra
	µg/ml	18.0	14.4	21.6	
	µmol/l	9.06	7.25	10.9	Ortho Vitros Microslide Systems
	µg/ml	13.5	10.8	16.2	
	µmol/l	11.3	9.04	13.6	Abbott Architect
	µg/ml	16.8	13.4	20.2	

%

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

Cat. No. IA3111 / IA3112 Lot No. 1508EC Size: 12 x 5 ml / 12 x 5 ml Expiry: 2018-04

			Range		
Analyte	**unit**	**Target**	**low**	**high**	**methods**
Vancomycin	µmol/l	9.13	7.30	11.0	Siemens Centaur XP/XPT/Classic
	µg/ml	13.6	10.9	16.3	
	µmol/l	9.89	7.91	11.9	Siemens ADVIA 1200/1650/1800/2400
	µg/ml	14.7	11.8	17.6	
	µmol/l	10.3	8.24	12.4	Siemens Dimension
	µg/ml	15.3	12.2	18.4	
	µmol/l	10.4	8.32	12.5	Roche Cobas 6000/8000
	µg/ml	15.5	12.4	18.6	
	µmol/l	10.4	8.32	12.5	Beckman DxC
	µg/ml	15.5	12.4	18.6	
	µmol/l	10.8	8.62	12.9	Gravimetric
	µg/ml	16.0	12.8	19.2	
Vitamin B12	pmol/l	753	602	904	Abbott Architect
	pg/ml	1020	816	1224	
	pmol/l	769	577	961	Siemens Centaur XP/XPT/Classic
	pg/ml	1042	782	1302	
	pmol/l	657	526	788	Siemens Immulite 2000
	pg/ml	890	713	1067	
	pmol/l	698	558	838	Siemens Immulite 1000
	pg/ml	946	756	1136	
	pmol/l	730	584	876	Beckman DxI800
	pg/ml	989	791	1187	
	pmol/l	722	578	866	Roche Elecsys
	pg/ml	978	783	1173	
	pmol/l	757	606	908	Roche Modular E170
	pg/ml	1026	821	1231	
	pmol/l	720	576	864	Beckman Access
	pg/ml	976	780	1172	
	pmol/l	874	699	1049	Tosoh AIA360
	pg/ml	1184	947	1421	
	pmol/l	673	538	808	Vitros ECi
	pg/ml	912	729	1095	
	pmol/l	756	605	907	MP Biomedicals RIA
	pg/ml	1024	820	1228	
	pmol/l	739	591	887	Roche Cobas E411
	pg/ml	1001	801	1201	
	pmol/l	755	604	906	Roche Cobas 6000/8000
	pg/ml	1023	818	1228	
	pmol/l	732	586	878	Siemens Dimension
	pg/ml	992	794	1190	
	pmol/l	831	623	1039	Siemens Centaur CP
	pg/ml	1126	845	1407	