

## IMMUNOASSAY PREMIUM - LEVEL I (IA PREMIUM I)

**CAT. NO.** IA2638      **GTIN:** 05055273203844      **SIZE:** 12 x 5 ml  
**CAT. NO.** IA2633      **GTIN:** 05055273203837      **SIZE:** 4 x 5 ml  
**LOT NO.** 2145EC      **EXPIRY:** 2022-11-28

### INTENDED USE

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

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

### SAFETY PRECAUTIONS AND WARNINGS

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

Human source material, from which this product has been derived, has been tested at donor level for the Human Immunodeficiency Virus (HIV 1, HIV 2) antibody, Hepatitis B Surface Antigen (HbsAg), and Hepatitis C Virus (HCV) antibody and found to be NON-REACTIVE. FDA approved methods have been used to conduct these tests.

However, since no method can offer complete assurance as to the absence of infectious agents, this material and all patient samples should be handled as though capable of transmitting infectious diseases and disposed of accordingly.

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

Health and Safety Data Sheets are available on request.

### STORAGE AND STABILITY

**OPENED:** Store refrigerated (+2°C to +8°C). Reconstituted serum is stable for 7 days at +2°C to +8°C, if kept capped in original container and free from contamination, or 4 weeks frozen once at -20°C. C-Peptide is stable for 1 day at +2°C to +8°C.

Thyroglobulin should be tested within 4 hours of reconstitution when stored at +2°C to +8°C, or within 2 weeks when stored at -20°C. ACTH should be tested immediately after the 30-minute reconstitution period. No frozen stability claim is made for ACTH, Aldosterone and C-Peptide. Only the required amount of product should be removed. After use, any residual product should NOT BE RETURNED to the original vial.

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

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

### PREPARATION

Immunoassay Premium is supplied lyophilised.

- 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.
- Refer to the Control section of the individual analyser application.
- Refrigerate any unused material. Prior to reuse, mix contents thoroughly.

### MATERIALS PROVIDED

Immunoassay Premium - Level I: 12 x 5 ml    Tri-Level: 4 x 5 ml

### MATERIAL REQUIRED BUT NOT PROVIDED

Volumetric pipette

### VALUE ASSIGNMENT

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

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

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Rev. 27 Oct '21 me

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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods
			low	high	
17-OH-Progesterone	nmol/l	2.34	1.76	2.93	Immunotech RIA
	ng/ml	0.775	0.583	0.967	
	nmol/l	2.97	2.23	3.71	DRG ELISA
	ng/ml	0.983	0.738	1.23	
	nmol/l	3.45	2.59	4.31	SNIBE Maglumi Analysers
	ng/ml	1.14	0.857	1.42	
25-OH Vitamin D	nmol/l	38.3	28.7	47.9	Diasorin Liaison
	nmol/l	27.8	20.9	34.8	Siemens Centaur XP/XPT/Classic
	nmol/l	18.1	13.6	22.6	Roche Vitamin D Total
	nmol/l	20.8	15.6	26.0	ELISA
	nmol/l	22.2	16.7	27.8	Abbott Architect
	nmol/l	20.8	15.6	26.0	IDS iSYS
	nmol/l	35.9	26.9	44.9	SNIBE Maglumi Analysers
	nmol/l	96.4	72.3	121	Vitros ECi
	nmol/l	22.8	17.1	28.5	Tosoh Series
	nmol/l	22.5	16.9	28.1	BioMerieux Vidas
	nmol/l	39.8	29.9	49.8	Beckman DxI 600/800
	nmol/l	43.7	32.8	54.7	Beckman Access 25 OH Vitamin D Total
	nmol/l	20.3	15.2	25.4	Roche Vitamin D Total II
	nmol/l	42.2	31.7	52.8	Diasorin Liaison XL
ACTH	pmol/l	1.12	0.840	1.40	Siemens Immulite 2000/2500
	pg/ml	5.09	3.82	6.36	
	pmol/l	2.20	1.65	2.75	Siemens Immulite 1000
	pg/ml	10.0	7.50	12.5	
Aldosterone	pmol/l	13.9	10.4	17.4	SNIBE Maglumi Analysers
	pg/ml	5.02	3.75	6.29	
	pmol/l	371	278	464	IDS iSYS
	pg/ml	134	100	168	
	pmol/l	101	75.8	126	Diasorin Liaison XL
	pg/ml	36.4	27.3	45.5	
Alpha-fetoprotein	KIU/l = IU/ml	9.79	7.83	11.7	Abbott Architect
	ng/ml	11.8	9.47	14.1	
	KIU/l = IU/ml	10.9	8.72	13.1	BioMerieux Vidas
	ng/ml	13.2	10.6	15.8	
	KIU/l = IU/ml	11.4	9.01	13.8	Siemens Centaur XP/XPT/Classic
	ng/ml	13.8	10.9	16.7	
	KIU/l = IU/ml	9.92	7.94	11.9	Siemens Immulite 2000/2500
	ng/ml	12.0	9.61	14.4	
	KIU/l = IU/ml	10.7	8.56	12.8	Siemens Immulite 1000
	ng/ml	12.9	10.4	15.4	
	KIU/l = IU/ml	9.84	7.87	11.8	Beckman DxI800
	ng/ml	11.9	9.52	14.3	

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Analyte	unit	Target	Range		methods
			low	high	
Alpha-fetoprotein	KIU/l = IU/ml	10.7	8.56	12.8	Roche Elecsys
	ng/ml	12.9	10.4	15.4	
	KIU/l = IU/ml	11.9	9.52	14.3	Diasorin Liaison
	ng/ml	14.4	11.5	17.3	
	KIU/l = IU/ml	9.89	7.91	11.9	Beckman Access
	ng/ml	12.0	9.57	14.4	
	KIU/l = IU/ml	10.4	8.32	12.5	Tosoh Series
	ng/ml	12.6	10.1	15.1	
	KIU/l = IU/ml	10.7	8.56	12.8	Vitros ECI
	ng/ml	11.1	8.88	13.3	
	KIU/l = IU/ml	11.0	8.80	13.2	Roche Cobas 6000/8000
	ng/ml	13.3	10.6	16.0	
	KIU/l = IU/ml	17.9	14.3	21.5	CIS IRMA
	ng/ml	21.7	17.3	26.1	
Amikacin	KIU/l = IU/ml	10.9	8.72	13.1	Roche Cobas E411
	ng/ml	13.2	10.6	15.8	
	KIU/l = IU/ml	10.4	8.32	12.5	SNIBE Maglumi Analysers
	ng/ml	12.6	10.1	15.1	
	KIU/l = IU/ml	10.7	8.45	13.0	Siemens Centaur CP
	ng/ml	12.9	10.2	15.6	
	KIU/l = IU/ml	11.1	8.85	13.3	Siemens Atellica IM
	ng/ml	13.4	10.7	16.1	
	KIU/l = IU/ml	11.8	9.44	14.2	Diasorin Liaison XL
	ng/ml	14.3	11.4	17.2	
Androstenedione	µmol/l	6.66	5.33	7.99	Roche Integra
	µg/ml	3.90	3.12	4.68	
	µmol/l	6.39	5.11	7.67	Roche Cobas 6000/8000
	µg/ml	3.74	2.99	4.49	
Beta-2-microglobulin	µmol/l	6.40	5.12	7.68	Gravimetric
	µg/ml	3.75	3.00	4.50	
	nmol/l	4.85	3.64	6.06	Siemens Immulite 2000
	ng/ml	1.39	1.04	1.74	
	nmol/l	2.38	1.79	2.98	DiaMetra ELISA
	ng/ml	0.683	0.514	0.852	
C-Peptide	nmol/l	5.03	3.77	6.29	Diasorin Liaison XL
	ng/ml	1.44	1.08	1.81	
	µg/ml = mg/l	1.03	0.824	1.24	Abbott Architect
	µg/ml = mg/l	1.03	0.824	1.24	BioMerieux Vidas
	µg/ml = mg/l	1.01	0.808	1.21	Behring Nephelometer
	µg/ml = mg/l	1.03	0.824	1.24	Siemens Immulite 2000/2500
	µg/ml = mg/l	1.25	1.00	1.50	Siemens Immulite 1000
C-Peptide	µg/ml = mg/l	0.900	0.720	1.08	Tosoh Series
	µg/ml = mg/l	1.15	0.920	1.38	Roche Cobas 6000/8000
	nmol/l	0.210	0.158	0.263	Siemens Immulite 2000/2500
	ng/ml	0.634	0.477	0.791	
C-Peptide	nmol/l	0.360	0.270	0.450	Roche Cobas 6000/8000
	ng/ml	1.09	0.815	1.37	

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Analyte	unit	Target	Range		methods	
			low	high		
C-Peptide	nmol/l	0.120	0.090	0.150	Diasorin Liaison	
	ng/ml	0.362	0.272	0.452		
	nmol/l	0.330	0.248	0.413	Roche Cobas E411	
	ng/ml	0.996	0.749	1.24		
	nmol/l	0.280	0.210	0.350	Abbott Architect	
	ng/ml	0.845	0.634	1.06		
	nmol/l	0.199	0.139	0.259	Siemens Centaur XP/XPT/Classic	
	ng/ml	0.601	0.421	0.781		
	nmol/l	0.230	0.173	0.288	Tosoh Series	
	ng/ml	0.694	0.522	0.866		
	nmol/l	0.440	0.330	0.550	SNIBE Maglumi Analysers	
	ng/ml	1.33	0.996	1.66		
	Carbamazepine	µmol/l	15.8	12.6	19.0	Abbott Architect
		µg/ml	3.74	2.98	4.50	
µmol/l		18.7	13.5	23.9	Siemens Centaur XP/XPT/Classic	
µg/ml		4.42	3.18	5.66		
µmol/l		14.3	11.4	17.2	Siemens Dimension	
µg/ml		3.38	2.69	4.07		
µmol/l		12.9	10.3	15.5	Siemens Immulite 2000/2500	
µg/ml		3.05	2.43	3.67		
µmol/l		13.9	11.1	16.7	Siemens Immulite 1000	
µg/ml		3.29	2.62	3.96		
µmol/l		15.3	12.2	18.4	Roche Integra	
µg/ml		3.62	2.88	4.36		
µmol/l		13.8	11.0	16.6	Roche Cobas E411	
µg/ml		3.26	2.60	3.92		
µmol/l		14.2	11.4	17.0	Roche Cobas 6000/8000	
µg/ml		3.36	2.69	4.03		
µmol/l		14.2	11.4	17.0	Beckman DxC	
µg/ml		3.36	2.69	4.03		
µmol/l		16.7	13.4	20.0	Beckman AU400/600/640/2700/5400	
µg/ml		3.95	3.17	4.73		
µmol/l	15.8	12.6	19.0	Siemens ADVIA 1200/1650/1800/2400		
µg/ml	3.74	2.98	4.50			
µmol/l	15.4	12.3	18.4	Gravimetric		
µg/ml	3.63	2.91	4.35			
Carcinoembryonic Antigen (CEA)	ng/ml = µg/l	2.40	1.92	2.88	Siemens Immulite 2000/2500	
	ng/ml = µg/l	2.54	2.03	3.05	Roche Cobas 6000/8000	
	ng/ml = µg/l	2.52	2.02	3.02	Roche Cobas E411	
Cortisol	nmol/l	225	169	281	Abbott Architect	
	µg/dl	8.10	6.08	10.1		
	nmol/l	131	98.3	164	BioMerieux Vidas	
	µg/dl	4.72	3.54	5.90		
	nmol/l	206	136	276	Siemens Centaur XP/XPT/Classic	
µg/dl	7.42	4.90	9.94			

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Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods
			low	high	
Cortisol	nmol/l	199	149	249	CIS RIA
	µg/dl	7.16	5.36	8.96	
	nmol/l	204	153	255	Siemens Immulite 2000/2500
	µg/dl	7.34	5.51	9.17	
	nmol/l	204	153	255	Siemens Immulite 1000
	µg/dl	7.34	5.51	9.17	
	nmol/l	210	158	263	Beckman Dxl800
	µg/dl	7.56	5.69	9.43	
	nmol/l	197	148	246	Roche Elecsys
	µg/dl	7.09	5.33	8.85	
	nmol/l	257	193	321	Diasorin Liaison
	µg/dl	9.25	6.95	11.6	
	nmol/l	193	145	241	Roche Modular E170
	µg/dl	6.95	5.22	8.68	
	nmol/l	214	161	268	Beckman Access
	µg/dl	7.70	5.80	9.60	
	nmol/l	195	146	244	Tosoh Series
	µg/dl	7.02	5.26	8.78	
	nmol/l	153	115	191	Vitros ECi
	µg/dl	5.51	4.14	6.88	
nmol/l	195	146	244	Roche Cobas 6000/8000	
µg/dl	7.02	5.26	8.78		
nmol/l	208	156	260	Roche Cobas E411	
µg/dl	7.49	5.62	9.36		
nmol/l	295	221	369	SNIBE Maglumi Analysers	
µg/dl	10.6	7.96	13.2		
nmol/l	247	163	331	Siemens Centaur CP	
µg/dl	8.89	5.87	11.9		
nmol/l	211	158	264	Roche Cobas 4000/e411 Gen II	
µg/dl	7.60	5.69	9.51		
nmol/l	190	143	238	Roche Cobas 6000/8000 Gen II	
µg/dl	6.84	5.15	8.53		
nmol/l	204	153	255	Roche Elecsys Gen II	
µg/dl	7.34	5.51	9.17		
nmol/l	221	165	276	Siemens Atellica IM	
µg/dl	7.94	5.94	9.94		
DHEA-S	µmol/l	2.24	1.79	2.69	Abbott Architect
	µmol/l	1.71	1.37	2.05	Siemens Immulite 2000/2500
	µmol/l	1.72	1.38	2.06	Siemens Immulite 1000
	µmol/l	2.03	1.62	2.44	Beckman Dxl800
	µmol/l	3.02	2.42	3.62	Roche Elecsys
	µmol/l	2.11	1.69	2.53	Beckman Access
	µmol/l	2.03	1.32	2.74	Siemens Centaur XP/XPT/Classic
	µmol/l	2.82	2.26	3.38	Roche Cobas E411
	µmol/l	2.72	2.18	3.26	Roche Cobas 6000/8000
	µmol/l	1.99	1.59	2.39	SNIBE Maglumi Analysers

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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods	
			low	high		
Digoxin	nmol/l	0.640	0.512	0.768	Abbott Architect	
	ng/ml	0.500	0.400	0.600		
	nmol/l	0.670	0.536	0.804	BioMerieux Vidas	
	ng/ml	0.523	0.419	0.627		
	nmol/l	1.04	0.780	1.30	Siemens Centaur XP/XPT/Classic	
	ng/ml	0.810	0.609	1.02		
	nmol/l	0.790	0.632	0.948	Siemens Dimension	
	ng/ml	0.617	0.494	0.740		
	nmol/l	0.690	0.552	0.828	Siemens Immulite 2000/2500	
	ng/ml	0.539	0.431	0.647		
	nmol/l	0.860	0.688	1.03	Beckman Dxl800	
	ng/ml	0.672	0.537	0.807		
	nmol/l	1.00	0.800	1.20	Roche Elecsys	
	ng/ml	0.781	0.625	0.937		
	nmol/l	0.850	0.680	1.02	Roche Integra	
	ng/ml	0.664	0.531	0.797		
	Ethosuximide	nmol/l	0.910	0.728	1.09	Roche Cobas 6000/8000
		ng/ml	0.711	0.569	0.853	
Ethosuximide	nmol/l	0.990	0.792	1.19	Beckman AU400/600/640/2700/5400	
	ng/ml	0.773	0.619	0.927		
Ethosuximide	nmol/l	1.02	0.816	1.22	Roche Cobas 4000/E411	
	ng/ml	0.797	0.637	0.957		
Ethosuximide	nmol/l	0.896	0.720	1.08	Gravimetric	
	ng/ml	0.700	0.560	0.840		
Ethosuximide	µmol/l	226	181	271	Gravimetric	
	µg/ml	32.0	25.7	38.4		
Ferritin	ng/ml = µg/l	16.1	12.9	19.3	Abbott Architect	
	ng/ml = µg/l	13.7	11.0	16.4	BioMerieux Vidas	
	ng/ml = µg/l	13.3	10.6	16.0	Roche Tinaquant	
	ng/ml = µg/l	13.6	10.2	17.0	Siemens Centaur XP/XPT/Classic	
	ng/ml = µg/l	14.7	11.8	17.6	Siemens Dimension	
	ng/ml = µg/l	13.6	10.9	16.3	Siemens Immulite 2000/2500	
	ng/ml = µg/l	14.5	11.6	17.4	Siemens Immulite 1000	
	ng/ml = µg/l	10.7	8.56	12.8	Beckman Dxl800	
	ng/ml = µg/l	16.2	13.0	19.4	Roche Elecsys	
	ng/ml = µg/l	15.2	12.2	18.2	Diasorin Liaison	
	ng/ml = µg/l	15.8	12.6	19.0	Roche Modular E170	
	ng/ml = µg/l	10.6	8.48	12.7	Beckman Access	
	ng/ml = µg/l	10.5	8.40	12.6	Tosoh Series	
	ng/ml = µg/l	11.8	9.44	14.2	Vitros ECI	
	ng/ml = µg/l	12.4	9.92	14.9	Immunotech IRMA	
	ng/ml = µg/l	16.8	13.4	20.2	Roche Cobas E411	
	ng/ml = µg/l	14.7	11.8	17.6	Beckman AU400/600/640/2700/5400	
	ng/ml = µg/l	12.4	9.30	15.5	Siemens Centaur CP	
ng/ml = µg/l	12.3	9.86	14.8	Siemens Atellica IM		
ng/ml = µg/l	14.7	11.8	17.6	Diasorin Liaison XL		

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Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods
			low	high	
Folate	nmol/l	4.13	3.14	5.12	Abbott Architect
	ng/ml	1.82	1.38	2.26	
	nmol/l	8.97	4.93	13.0	Siemens Centaur XP/XPT/Classic (enhanced kit)
	ng/ml	3.96	2.18	5.74	
	nmol/l	3.08	2.34	3.82	Siemens Immulite 2000
	ng/ml	1.36	1.03	1.69	
	nmol/l	3.71	2.82	4.60	Beckman Dxl800
	ng/ml	1.64	1.24	2.04	
	nmol/l	4.14	3.15	5.13	Beckman Access
	ng/ml	1.83	1.39	2.27	
	nmol/l	3.57	2.71	4.43	Vitros ECI
	ng/ml	1.57	1.20	1.94	
	nmol/l	3.20	2.43	3.97	Roche Cobas E411
	ng/ml	1.41	1.07	1.75	
nmol/l	3.26	2.48	4.04	Roche Cobas 6000/8000	
ng/ml	1.44	1.09	1.79		
nmol/l	3.38	2.57	4.19	Roche Cobas 6000/8000 Folate III	
ng/ml	1.49	1.13	1.85		
nmol/l	2.97	2.26	3.68	Roche Cobas 4000/e411 Folate III	
ng/ml	1.31	0.997	1.62		
Free T3	pmol/l	2.92	2.19	3.65	Abbott Architect
	ng/dl	0.190	0.142	0.238	
	pg/ml	1.90	1.43	2.37	
	pmol/l	2.66	2.00	3.33	BioMerieux Vidas
	ng/dl	0.173	0.130	0.216	
	pg/ml	1.73	1.30	2.16	
	pmol/l	3.60	2.16	5.04	Siemens Centaur XP/XPT/Classic
	ng/dl	0.234	0.140	0.328	
	pg/ml	2.34	1.40	3.28	
	pmol/l	2.91	2.18	3.64	Siemens Immulite 2000/2500
	ng/dl	0.189	0.142	0.236	
	pg/ml	1.89	1.42	2.36	
	pmol/l	2.86	2.15	3.58	Siemens Immulite 1000
	ng/dl	0.186	0.140	0.232	
	pg/ml	1.86	1.40	2.32	
	pmol/l	3.58	2.69	4.48	Beckman Dxl800
	ng/dl	0.233	0.175	0.291	
	pg/ml	2.33	1.75	2.91	
	pmol/l	4.14	3.11	5.18	Roche Elecsys
	ng/dl	0.269	0.202	0.336	
pg/ml	2.70	2.02	3.38		
pmol/l	2.88	2.16	3.60	Diasorin Liaison	
ng/dl	0.187	0.140	0.234		
pg/ml	1.87	1.41	2.33		
pmol/l	4.01	3.01	5.01	Roche Modular E170	
ng/dl	0.261	0.196	0.326		
pg/ml	2.61	1.96	3.26		

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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods
			low	high	
Free T3	pmol/l	3.46	2.60	4.33	Beckman Access
	ng/dl	0.225	0.169	0.281	
	pg/ml	2.25	1.69	2.81	
	pmol/l	6.40	4.80	8.00	Vitros ECI
	ng/dl	0.416	0.312	0.520	
	pg/ml	4.17	3.12	5.22	
	pmol/l	4.22	3.17	5.28	Roche Cobas E411
	ng/dl	0.274	0.206	0.342	
	pg/ml	2.75	2.06	3.44	
	pmol/l	3.92	2.94	4.90	Roche Cobas 6000/8000
	ng/dl	0.255	0.191	0.319	
	pg/ml	2.55	1.91	3.19	
	pmol/l	2.31	1.73	2.89	SNIBE Maglumi Analysers
	ng/dl	0.150	0.112	0.188	
	pg/ml	1.50	1.13	1.87	
	pmol/l	3.79	2.27	5.31	Siemens Centaur CP
	ng/dl	0.246	0.148	0.344	
	pg/ml	2.46	1.48	3.44	
pmol/l	3.35	2.51	4.19	Mindray CL-2000i	
ng/dl	0.218	0.163	0.273		
pg/ml	2.18	1.63	2.73		
pmol/l	3.90	2.93	4.88	Siemens Atellica IM	
ng/dl	0.250	0.190	0.320		
pg/ml	2.54	1.91	3.18		
pmol/l	2.83	2.12	3.54	Diasorin Liaison XL	
ng/dl	0.180	0.140	0.230		
pg/ml	1.84	1.38	2.30		
Free T4	pmol/l	9.55	7.16	11.9	Abbott AXSYM
	ng/dl	0.745	0.558	0.932	
	pg/ml	7.45	5.58	9.32	
	pmol/l	9.22	6.92	11.5	Abbott Architect
	ng/dl	0.719	0.540	0.898	
	pg/ml	7.19	5.40	8.98	
	pmol/l	8.20	6.15	10.3	Siemens Centaur XP/XPT/Classic
	ng/dl	0.640	0.480	0.800	
	pg/ml	6.40	4.80	8.00	
	pmol/l	10.3	7.73	12.9	CIS RIA Coated tube
	ng/dl	0.803	0.603	1.00	
	pg/ml	8.03	6.03	10.0	
	pmol/l	12.5	9.38	15.6	Siemens Immulite 2000/2500
	ng/dl	0.975	0.732	1.22	
	pg/ml	9.75	7.32	12.2	
pmol/l	12.3	9.23	15.4	Siemens Immulite 1000	
ng/dl	0.959	0.720	1.20		
pg/ml	9.59	7.20	12.0		



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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods
			low	high	
Free T4	pmol/l	9.47	7.10	11.8	Beckman DxI800
	ng/dl	0.739	0.554	0.924	
	pg/ml	7.39	5.54	9.24	
	pmol/l	12.9	9.68	16.1	Roche Elecsys
	ng/dl	1.01	0.755	1.27	
	pg/ml	10.1	7.55	12.7	
	pmol/l	10.8	8.10	13.5	Diasorin Liaison
	ng/dl	0.842	0.632	1.05	
	pg/ml	8.42	6.32	10.5	
	pmol/l	9.41	7.06	11.8	Beckman Access
	ng/dl	0.734	0.551	0.917	
	pg/ml	7.34	5.51	9.17	
	pmol/l	9.68	7.26	12.1	Tosoh Series
	ng/dl	0.755	0.566	0.944	
	pg/ml	7.55	5.66	9.44	
	pmol/l	16.2	12.2	20.3	Vitros ECi
	ng/dl	1.26	0.952	1.57	
	pg/ml	12.6	9.52	15.7	
	pmol/l	12.3	9.23	15.4	Roche Cobas 6000/8000
	ng/dl	0.959	0.720	1.20	
	pg/ml	9.59	7.20	12.0	
	pmol/l	10.8	8.10	13.5	Immunotech IRMA
	ng/dl	0.842	0.632	1.05	
	pg/ml	8.42	6.32	10.5	
	pmol/l	13.2	9.90	16.5	Roche Cobas E411
	ng/dl	1.03	0.772	1.29	
	pg/ml	10.3	7.72	12.9	
	pmol/l	10.3	7.73	12.9	SNIBE Maglumi Analysers
	ng/dl	0.803	0.603	1.00	
	pg/ml	8.03	6.03	10.0	
pmol/l	9.65	7.24	12.1	Biomerieux Vidas FT4N Kit	
ng/dl	0.753	0.565	0.941		
pg/ml	7.53	5.65	9.41		
pmol/l	8.81	6.61	11.0	Siemens Centaur CP	
ng/dl	0.687	0.515	0.859		
pg/ml	6.87	5.15	8.59		
pmol/l	8.46	7.19	9.73	Mindray CL-2000i	
ng/dl	0.660	0.560	0.760		
pg/ml	6.60	5.61	7.59		
pmol/l	9.78	7.34	12.2	Siemens Atellica IM	
ng/dl	0.760	0.570	0.950		
pg/ml	7.63	5.73	9.52		
pmol/l	11.5	8.63	14.4	Diasorin Liaison XL	
ng/dl	0.900	0.670	1.12		
pg/ml	8.97	6.73	11.2		
FSH	mU/ml	5.27	4.22	6.32	Abbott Architect

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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods
			low	high	
FSH	mU/ml	6.50	5.20	7.80	BioMerieux Vidas
	mU/ml	7.53	5.27	9.79	Siemens Centaur XP/XPT/Classic
	mU/ml	6.05	4.84	7.26	Siemens Immulite 2000/2500
	mU/ml	6.29	5.03	7.55	Siemens Immulite 1000
	mU/ml	6.46	5.17	7.75	Beckman Dxl800
	mU/ml	5.99	4.79	7.19	Roche/BM Elecsys
	mU/ml	7.64	6.11	9.17	Diasorin Liaison
	mU/ml	5.80	4.64	6.96	Roche Modular E170
	mU/ml	6.20	4.96	7.44	Beckman Access
	mU/ml	6.68	5.34	8.02	Tosoh Series
	mU/ml	4.90	3.92	5.88	Vitros ECi
	mU/ml	6.02	4.82	7.22	Roche Cobas E411
	mU/ml	5.67	4.54	6.80	Roche Cobas 6000/8000
	mU/ml	6.73	5.38	8.08	SNIBE Maglumi Analysers
	mU/ml	5.42	3.79	7.05	Siemens Centaur CP
	mU/ml	6.88	5.50	8.26	Siemens Atellica IM
mU/ml	8.63	6.90	10.4	Diasorin Liaison XL	
Gentamicin	µmol/l	4.64	3.71	5.57	Roche Integra
	µg/ml	2.22	1.77	2.67	
	µmol/l	4.20	3.36	5.04	Siemens Dimension Vista
	µg/ml	2.01	1.61	2.41	
	µmol/l	3.41	2.73	4.09	Roche Cobas 6000/8000
	µg/ml	1.63	1.30	1.96	
	µmol/l	5.17	4.14	6.20	Beckman DxC
	µg/ml	2.47	1.98	2.96	
Growth Hormone (GH)	µU/ml	3.51	2.81	4.21	CIS IRMA
	ng/ml	1.17	0.936	1.40	
	µU/ml	5.44	4.35	6.53	Siemens Immulite 2000/2500
	ng/ml	1.81	1.45	2.17	
	µU/ml	5.09	4.07	6.11	Siemens Immulite 1000
	ng/ml	1.69	1.36	2.02	
	µU/ml	3.79	3.03	4.55	Beckman Dxl800
	ng/ml	1.26	1.01	1.51	
	µU/ml	3.94	3.15	4.73	Beckman Access
	ng/ml	1.31	1.05	1.57	
	µU/ml	4.31	3.45	5.17	Tosoh Series
	ng/ml	1.44	1.15	1.73	
	µU/ml	4.03	3.22	4.84	Diasorin Liaison
	ng/ml	1.34	1.07	1.61	
	µU/ml	4.89	3.91	5.87	Roche Cobas E411
	ng/ml	1.63	1.30	1.96	
	µU/ml	7.08	5.66	8.50	SNIBE Maglumi Analysers
	ng/ml	2.36	1.88	2.84	
	µU/ml	4.80	3.84	5.76	Roche Cobas 6000/8000
	ng/ml	1.60	1.28	1.92	

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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods
			low	high	
Growth Hormone (GH)	µU/ml	4.59	3.67	5.51	IDS iSYS
	ng/ml	1.53	1.22	1.84	
	µU/ml	3.86	3.09	4.63	Diasorin Liaison XL
	ng/ml	1.29	1.03	1.54	
Immunoglobulin E	KIU/I = IU/ml	278	222	334	Abbott Architect
	KIU/I = IU/ml	175	140	210	Beckman Immage
	KIU/I = IU/ml	207	166	248	BioMerieux Vidas
	KIU/I = IU/ml	235	141	329	Siemens Centaur XP/XPT/Classic
	KIU/I = IU/ml	246	197	295	Siemens Immulite 2000/2500
	KIU/I = IU/ml	266	213	319	Siemens Immulite 1000
	KIU/I = IU/ml	250	200	300	Beckman Dxl800
	KIU/I = IU/ml	249	199	299	Roche Elecsys
	KIU/I = IU/ml	207	166	248	Pharmacia Unicap
	KIU/I = IU/ml	228	182	274	Tosoh Series
	KIU/I = IU/ml	238	190	286	Roche Cobas E411
	KIU/I = IU/ml	235	188	282	Roche Cobas 6000/8000
	KIU/I = IU/ml	205	164	246	SNIBE Maglumi Analysers
	KIU/I = IU/ml	206	124	288	Siemens Centaur CP
Insulin	mU/l	1.82	1.37	2.27	Siemens Centaur XP/XPT/Classic
	µU/ml	1.82	1.37	2.27	
	mU/l	2.08	1.56	2.60	Roche Elecsys
	µU/ml	2.08	1.56	2.60	
	mU/l	1.12	0.840	1.40	Beckman Access
	µU/ml	1.12	0.840	1.40	
	mU/l	1.49	1.12	1.86	Abbott Architect
	µU/ml	1.49	1.12	1.86	
	mU/l	2.30	1.73	2.88	Tosoh Series
	µU/ml	2.30	1.73	2.87	
	mU/l	2.15	1.61	2.69	Roche Cobas E411
	µU/ml	2.15	1.61	2.69	
	mU/l	1.11	0.833	1.39	Beckman Dxl 600/800
	µU/ml	1.11	0.833	1.39	
	mU/l	1.36	1.02	1.70	Diasorin Liaison
	µU/ml	1.36	1.02	1.70	
	mU/l	2.27	1.70	2.84	Roche Cobas 6000/8000
	µU/ml	2.27	1.70	2.84	
	mU/l	4.06	3.05	5.08	SNIBE Maglumi Analysers
	µU/ml	4.06	3.05	5.07	
mU/l	1.67	1.25	2.09	Siemens Centaur CP	
µU/ml	1.67	1.25	2.09		
Luteinising Hormone (LH)	mU/ml	2.15	1.72	2.58	Abbott Architect
	mU/ml	2.77	2.22	3.32	BioMerieux Vidas
	mU/ml	2.58	1.94	3.22	Siemens Centaur XP/XPT/Classic
	mU/ml	4.93	3.94	5.92	Siemens Immulite 2000
	mU/ml	5.32	4.26	6.38	Siemens Immulite 1000

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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods
			low	high	
Luteinising Hormone (LH)	mU/ml	1.89	1.51	2.27	Beckman Dxl800
	mU/ml	3.66	2.93	4.39	Roche Elecsys
	mU/ml	3.45	2.76	4.14	Diasorin Liaison
	mU/ml	3.66	2.93	4.39	Roche Modular E170
	mU/ml	1.85	1.48	2.22	Beckman Access
	mU/ml	2.42	1.94	2.90	Tosoh Series
	mU/ml	5.00	4.00	6.00	Vitros ECi
	mU/ml	3.53	2.82	4.24	Roche Cobas E411
	mU/ml	3.62	2.90	4.34	Roche Cobas 6000/8000
	mU/ml	3.92	3.14	4.70	SNIBE Maglumi Analysers
	mU/ml	2.53	1.90	3.16	Siemens Centaur CP
	mU/ml	2.36	1.89	2.83	Siemens Atellica IM
	mU/ml	3.65	2.92	4.38	Diasorin Liaison XL
Oestradiol	pmol/l	225	180	270	Abbott Architect
	pg/ml	61.2	49.0	73.4	
	pmol/l	233	186	280	BioMerieux Vidas
	pg/ml	63.4	50.6	76.2	
	pmol/l	174	104	244	Siemens Centaur XP/XPT/Classic
	pg/ml	47.3	28.4	66.2	
	pmol/l	137	110	164	Beckman Dxl800
	pg/ml	37.3	29.9	44.7	
	pmol/l	190	152	228	Roche Elecsys (Estradiol II)
	pg/ml	51.7	41.3	62.1	
	pmol/l	24.6	19.7	29.5	Tosoh (E2)
	pg/ml	6.69	5.36	8.02	
	pmol/l	78.2	62.6	93.8	Vitros ECi
	pg/ml	21.3	17.0	25.6	
	pmol/l	194	155	233	Roche Cobas 6000/8000 (Estradiol II)
	pg/ml	52.8	42.2	63.4	
	pmol/l	184	147	221	Roche Cobas 4000/E411 (Estradiol II)
	pg/ml	50.0	40.0	60.0	
	pmol/l	179	107	251	Siemens Centaur XP/XPT/Classic Enhanced (eE2)
	pg/ml	48.7	29.2	68.2	
	pmol/l	166	133	199	SNIBE Maglumi Analysers
pg/ml	45.2	36.2	54.2		
pmol/l	170	102	238	Siemens Centaur CP	
pg/ml	46.2	27.7	64.7		
pmol/l	194	155	233	Roche Cobas 6000/8000 (Estradiol III)	
pg/ml	52.8	42.2	63.4		
pmol/l	192	154	230	Roche Elecsys (Estradiol III)	
pg/ml	52.2	41.9	62.5		
pmol/l	190	152	228	Roche Cobas 4000/E411 (Estradiol III)	
pg/ml	51.7	41.3	62.1		
pmol/l	201	160	241	Siemens Atellica IM	
pg/ml	54.5	43.5	65.6		
Paracetamol	mmol/l	0.160	0.128	0.192	Abbott Architect
	mg/l	24.2	19.4	29.0	

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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods	
			low	high		
Paracetamol	mmol/l	0.150	0.120	0.180	Roche Cobas 6000/8000	
	mg/l	22.7	18.2	27.2		
	mmol/l	0.166	0.130	0.200	Gravimetric	
	mg/l	25.1	19.7	30.3		
Phenobarbital	µmol/l	35.5	28.4	42.6	Abbott Architect	
	µg/ml	8.24	6.59	9.89		
	µmol/l	31.8	25.4	38.2	Roche Cobas 6000/8000	
	µg/ml	7.38	5.89	8.87		
	µmol/l	36.9	29.5	44.3	Siemens Immulite 2000/2500	
	µg/ml	8.56	6.84	10.3		
	µmol/l	32.8	26.2	39.4	Beckman AU400/600/640/2700/5400	
	µg/ml	7.61	6.08	9.14		
	µmol/l	36.7	29.4	44.0	Roche Integra	
	µg/ml	8.51	6.82	10.2		
	µmol/l	36.2	29.0	43.4	Siemens Immulite 1000	
	µg/ml	8.40	6.73	10.1		
Phenytoin	µmol/l	35.6	28.5	42.7	Beckman DxC	
	µg/ml	8.26	6.61	9.91		
	µmol/l	34.5	27.6	41.4	Gravimetric	
	µg/ml	8.00	6.40	9.60		
	Phenytoin	µmol/l	19.9	15.9	23.9	Abbott Architect
		µg/ml	5.02	4.01	6.03	
		µmol/l	19.3	14.5	24.1	Siemens Centaur XP/XPT/Classic
		µg/ml	4.87	3.65	6.09	
		µmol/l	18.1	14.5	21.7	Siemens Dimension
		µg/ml	4.57	3.66	5.48	
		µmol/l	19.0	15.2	22.8	Siemens Immulite 2000/2500
		µg/ml	4.80	3.84	5.76	
µmol/l		21.2	17.0	25.4	Siemens Immulite 1000	
µg/ml		5.35	4.29	6.41		
µmol/l		19.8	15.8	23.8	Roche Integra	
µg/ml		5.00	3.99	6.01		
Phenytoin	µmol/l	19.2	15.4	23.0	Roche Cobas 6000/8000	
	µg/ml	4.85	3.89	5.81		
	µmol/l	20.1	16.1	24.1	Beckman DxC	
	µg/ml	5.08	4.07	6.09		
	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	3.12	2.50	3.74	Abbott Architect
		ng/ml	0.977	0.783	1.17	
		nmol/l	4.60	3.68	5.52	BioMerieux Vidas
		ng/ml	1.44	1.15	1.73	
Progesterone	nmol/l	2.29	1.26	3.32	Siemens Centaur XP/XPT/Classic	
	ng/ml	0.720	0.394	1.04		

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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods
			low	high	
Progesterone	nmol/l	3.03	2.42	3.64	Siemens Immulite 2000/2500
	ng/ml	0.948	0.757	1.14	
	nmol/l	3.04	2.43	3.65	Siemens Immulite 1000
	ng/ml	0.952	0.761	1.14	
	nmol/l	2.91	2.33	3.49	Beckman Dxl Prog Cal 33555
	ng/ml	0.911	0.729	1.09	
	nmol/l	3.48	2.78	4.18	Roche Elecsys (Prog. II)
	ng/ml	1.09	0.870	1.31	
	nmol/l	2.97	2.38	3.56	Beckman Access Prog Cal 33555
	ng/ml	0.930	0.745	1.12	
	nmol/l	2.29	1.83	2.75	Tosoh Series
	ng/ml	0.717	0.573	0.861	
	nmol/l	2.64	2.11	3.17	Vitros ECi
	ng/ml	0.826	0.660	0.992	
	nmol/l	3.50	2.80	4.20	Roche Cobas 4000/e411 (Prog. II)
	ng/ml	1.10	0.876	1.32	
	nmol/l	3.47	2.78	4.16	Roche Cobas 6000/8000 (Prog. II)
	ng/ml	1.09	0.870	1.31	
	nmol/l	2.29	1.83	2.75	Beckman Dxl Prog DE Cal A80773
	ng/ml	0.717	0.573	0.861	
nmol/l	2.52	1.39	3.65	Siemens Centaur CP	
ng/ml	0.789	0.434	1.14		
nmol/l	3.36	2.69	4.03	Roche Cobas 6000/8000 (Prog. III)	
ng/ml	1.05	0.842	1.26		
nmol/l	3.28	2.62	3.94	Roche Elecsys (Prog. III)	
ng/ml	1.03	0.820	1.24		
nmol/l	3.46	2.77	4.15	Roche Cobas 4000/e411 (Prog. III)	
ng/ml	1.08	0.867	1.29		
Prolactin	µU/ml	151	121	181	Abbott Architect
	µU/ml	154	123	185	BioMerieux Vidas
	µU/ml	140	98.0	182	Siemens Centaur XP/XPT/Classic
	µU/ml	134	107	161	Siemens Immulite 2000/2500
	µU/ml	146	117	175	Siemens Immulite 1000
	µU/ml	126	101	151	Beckman Dxl800
	µU/ml	132	106	158	Roche Elecsys
	µU/ml	154	123	185	Diasorin Liaison
	µU/ml	129	103	155	Beckman Access
	µU/ml	195	156	234	Vitros ECi
	µU/ml	125	100	150	Roche Elecsys/E170/Cobas 6000/8000 PRLII
	µU/ml	160	128	192	Immunotech IRMA
	µU/ml	131	105	157	Roche Cobas E411
	µU/ml	125	100	150	Roche Cobas 6000/8000
	µU/ml	180	144	216	SNIBE Maglumi Analysers
	µU/ml	152	122	182	Abbott Architect restandardised
µU/ml	136	95.2	177	Siemens Centaur CP	

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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods
			low	high	
Prolactin	µU/ml	136	109	163	Siemens Atellica IM
	µU/ml	154	123	185	Diasorin Liaison XL
PSA Free	ng/ml = µg/l	1.33	0.998	1.66	Abbott Architect
	ng/ml = µg/l	2.48	1.86	3.10	BioMerieux Vidas
	ng/ml = µg/l	1.14	0.855	1.43	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	1.10	0.825	1.38	Siemens Immulite 2000/2500
	ng/ml = µg/l	1.49	1.12	1.86	Beckman DXI standardised to Hybritech
	ng/ml = µg/l	0.983	0.737	1.23	Roche Elecsys
	ng/ml = µg/l	0.744	0.558	0.930	Diasorin Liaison
	ng/ml = µg/l	1.50	1.13	1.88	Beckman Access standardised to Hybritech
	ng/ml = µg/l	0.917	0.688	1.15	Tosoh Series
	ng/ml = µg/l	0.973	0.730	1.22	Roche Cobas E411
	ng/ml = µg/l	0.962	0.722	1.20	Roche Cobas 6000/8000
	ng/ml = µg/l	1.26	0.945	1.58	Beckman Dxl800 standardised to WHO IRP96/670
	ng/ml = µg/l	0.694	0.521	0.868	SNIBE Maglumi Analysers
	ng/ml = µg/l	0.578	0.434	0.723	Ortho Vitros 3600/5600/ECi PSA II
	PSA Total	ng/ml = µg/l	1.13	0.850	1.41
ng/ml = µg/l		0.892	0.670	1.12	Diasorin Liaison XL
ng/ml = µg/l		1.25	0.938	1.56	Abbott Architect
ng/ml = µg/l		1.63	1.22	2.04	BioMerieux Vidas
ng/ml = µg/l		1.73	1.30	2.16	bioMerieux VIDAS TPSA
ng/ml = µg/l		1.47	1.10	1.84	Siemens Centaur XP/XPT/Classic
ng/ml = µg/l		0.823	0.617	1.03	Siemens Immulite 2000/2500 1st generation
ng/ml = µg/l		0.951	0.713	1.19	Siemens Immulite 1000 3rd generation
ng/ml = µg/l		0.948	0.711	1.19	Siemens Immulite 1000 1st generation
ng/ml = µg/l		1.86	1.40	2.33	Beckman Dxl standardisd to Hybritech
ng/ml = µg/l		1.58	1.19	1.98	Beckman Dxl800 standardised to WHO IRP96/670
ng/ml = µg/l		1.77	1.33	2.21	Roche Elecsys
ng/ml = µg/l		0.925	0.694	1.16	Diasorin Liaison
ng/ml = µg/l		1.74	1.31	2.18	Roche Modular E170
ng/ml = µg/l		1.87	1.40	2.34	Beckman Access standardised to Hybritech
ng/ml = µg/l		1.87	1.40	2.34	Beckman Access standardised to WHO IRP96/670
ng/ml = µg/l		1.12	0.840	1.40	Tosoh Series
ng/ml = µg/l		1.62	1.22	2.03	Vitros ECi
ng/ml = µg/l		2.20	1.65	2.75	CIS RIA Coated tube
ng/ml = µg/l		1.76	1.32	2.20	Roche Cobas E411
ng/ml = µg/l	1.80	1.35	2.25	Roche Cobas 6000/8000	
ng/ml = µg/l	1.84	1.38	2.30	SNIBE Maglumi Analysers	
ng/ml = µg/l	1.18	0.885	1.48	Fujirebio Lumipulse G Series	
ng/ml = µg/l	1.69	1.27	2.11	Ortho Vitros 3600/5600/ECi PSA II	
ng/ml = µg/l	1.38	1.04	1.72	Siemens Centaur CP	
ng/ml = µg/l	1.50	1.13	1.88	Siemens Atellica IM	
ng/ml = µg/l	0.887	0.670	1.11	Diasorin Liaison XL	
Salicylic Acid	mmol/l	0.286	0.230	0.340	Gravimetric
	mg/dl	3.95	3.18	4.70	
SHBG	nmol/l	11.5	9.20	13.8	Siemens Centaur XP/XPT/Classic

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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods
			low	high	
SHBG	nmol/l	11.0	8.80	13.2	Siemens Immulite 2000/2500
	nmol/l	12.9	10.3	15.5	Roche Elecsys
	nmol/l	10.7	8.56	12.8	Abbott Architect
	nmol/l	12.5	10.0	15.0	Roche Cobas E411
	nmol/l	11.9	9.52	14.3	Roche Cobas 6000/8000
	nmol/l	10.8	8.64	13.0	Beckman Dxl800
T Uptake	%U	33.8	27.7	39.9	Siemens Immulite 2000
Testosterone	nmol/l	2.04	1.63	2.45	Abbott Architect
	ng/ml	0.588	0.469	0.707	
	ng/dl	58.8	46.9	70.7	
	nmol/l	0.990	0.792	1.19	BioMerieux Vidas
	ng/ml	0.285	0.228	0.342	
	ng/dl	28.5	22.8	34.2	
	nmol/l	1.62	1.05	2.19	Siemens Centaur XP/XPT/Classic
	ng/ml	0.467	0.304	0.630	
	ng/dl	46.7	30.4	63.0	
	nmol/l	1.31	1.05	1.57	Siemens Immulite 1000
	ng/ml	0.377	0.302	0.452	
	ng/dl	37.7	30.2	45.2	
	nmol/l	1.46	1.17	1.75	Beckman Dxl800
	ng/ml	0.420	0.337	0.503	
	ng/dl	42.0	33.7	50.3	
	nmol/l	1.62	1.30	1.94	Beckman Access
	ng/ml	0.467	0.374	0.560	
	ng/dl	46.7	37.4	56.0	
	nmol/l	1.16	0.928	1.39	Tosoh Series
	ng/ml	0.334	0.267	0.401	
	ng/dl	33.4	26.7	40.1	
	nmol/l	0.866	0.693	1.04	Vitros ECi
	ng/ml	0.249	0.200	0.298	
	ng/dl	24.9	20.0	29.8	
	nmol/l	1.76	1.41	2.11	Roche Cobas 6000 Test 2
	ng/ml	0.507	0.406	0.608	
	ng/dl	50.7	40.6	60.8	
nmol/l	1.76	1.41	2.11	Roche Elecsys Test II	
ng/ml	0.507	0.406	0.608		
ng/dl	50.7	40.6	60.8		
nmol/l	1.75	1.40	2.10	Roche Modular E170 Test II	
ng/ml	0.504	0.403	0.605		
ng/dl	50.4	40.3	60.5		
nmol/l	1.86	1.49	2.23	Roche Cobas 4000/e411 Test II	
ng/ml	0.536	0.429	0.643		
ng/dl	53.6	42.9	64.3		
nmol/l	0.557	0.446	0.668	SNIBE Maglumi Analysers	
ng/ml	0.160	0.128	0.192		
ng/dl	16.0	12.8	19.2		



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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods
			low	high	
Testosterone	nmol/l	2.02	1.62	2.42	Abbott Architect 2nd Generation
	ng/ml	0.582	0.467	0.697	
	ng/dl	58.2	46.7	69.7	
	nmol/l	1.65	1.07	2.23	Siemens Centaur CP
	ng/ml	0.475	0.309	0.641	
	ng/dl	47.5	30.9	64.1	
	nmol/l	1.00	0.800	1.20	BioMerieux Vidas Testosterone II
	ng/ml	0.288	0.230	0.346	
	ng/dl	28.8	23.0	34.6	
	nmol/l	1.60	0.960	2.24	Siemens Centaur TST II
	ng/ml	0.461	0.277	0.645	
	ng/dl	46.1	27.7	64.5	
nmol/l	0.996	0.800	1.20	Diasorin Liaison XL	
ng/ml	0.290	0.230	0.350		
ng/dl	28.7	23.0	34.6		
Theophylline	µmol/l	28.9	23.1	34.7	Roche Integra
	µg/ml	5.21	4.16	6.26	
	µmol/l	23.7	19.0	28.4	Abbott Architect
	µg/ml	4.27	3.42	5.12	
	µmol/l	27.0	21.6	32.4	Roche Cobas 6000/8000
	µg/ml	4.87	3.89	5.85	
	µmol/l	25.0	20.0	30.0	Beckman DxC
	µg/ml	4.51	3.60	5.42	
Thyroglobulin	µmol/l	28.3	22.6	34.0	Gravimetric
	µg/ml	5.10	4.07	6.13	
	ng/ml	2.97	2.23	3.71	Roche Elecsys
	ng/ml	2.11	1.58	2.64	Beckman Dxl800
	ng/ml	3.14	2.36	3.93	Roche Cobas E411
	ng/ml	3.07	2.30	3.84	Roche Cobas 6000/8000
	ng/ml	2.21	1.66	2.76	Beckman Access
	ng/ml	3.15	2.36	3.94	Tosoh Series
	ng/ml	3.09	2.32	3.86	Roche Cobas 6000 TGII
	ng/ml	3.30	2.48	4.13	Roche Elecsys TGII
Thyroid Stimulating Hormone	ng/ml	3.09	2.32	3.86	Roche Cobas 4000/E411 TGII
	ng/ml	0.375	0.280	0.470	Diasorin Liaison
	µU/ml = mIU/l	0.112	0.090	0.134	Abbott Architect
	µU/ml = mIU/l	0.081	0.065	0.097	bioMerieux VIDAS TSH
	µU/ml = mIU/l	0.126	0.086	0.166	Siemens Centaur XP/XPT/Classic
	µU/ml = mIU/l	0.116	0.079	0.153	Siemens Centaur XP/XPT/Classic 3rd Generation
	µU/ml = mIU/l	0.128	0.102	0.154	Siemens Immulite 2000/2500
	µU/ml = mIU/l	0.155	0.124	0.186	Siemens Immulite 1000
	µU/ml = mIU/l	0.103	0.082	0.124	Beckman Dxl800 Fast TSH
	µU/ml = mIU/l	0.104	0.083	0.125	Beckman Dxl800
µU/ml = mIU/l	0.151	0.121	0.181	Roche Elecsys	
µU/ml = mIU/l	0.146	0.117	0.175	Diasorin Liaison	
µU/ml = mIU/l	0.108	0.086	0.130	Beckman Access Fast TSH	

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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods
			low	high	
Thyroid Stimulating Hormone	µU/ml = mIU/l	0.106	0.085	0.127	Beckman Access hyperTSH 3rd Generation
	µU/ml = mIU/l	0.143	0.114	0.172	Tosoh Series
	µU/ml = mIU/l	0.254	0.203	0.305	Vitros ECI
	µU/ml = mIU/l	0.149	0.119	0.179	Roche Cobas E411
	µU/ml = mIU/l	0.155	0.124	0.186	Roche Cobas 6000/8000
	µU/ml = mIU/l	0.103	0.082	0.124	Beckman Dxl800 Hyper TSH
	µU/ml = mIU/l	0.165	0.132	0.198	SNIBE Maglumi Analysers
	µU/ml = mIU/l	0.127	0.086	0.168	Siemens Centaur XP/XPT/Classic TSH3-Ultra
	µU/ml = mIU/l	0.131	0.089	0.173	Siemens Centaur CP
	µU/ml = mIU/l	0.131	0.089	0.173	Siemens Centaur CP TSH3-Ultra
	µU/ml = mIU/l	0.104	0.083	0.125	Beckman Dxl 600/800 Access (3rd IS)
	µU/ml = mIU/l	0.118	0.090	0.140	Siemens Atellica IM
µU/ml = mIU/l	0.205	0.160	0.250	Diasorin Liaison XL	
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	14.4	11.5	17.3	Abbott Architect
	IU/ml	0.014	0.012	0.016	
	mU/ml=IU/l	20.5	16.4	24.6	BioMerieux Vidas
	IU/ml	0.021	0.016	0.026	
	mU/ml=IU/l	19.1	11.5	26.7	Siemens Centaur XP/XPT/Classic
	IU/ml	0.019	0.011	0.027	
	mU/ml=IU/l	22.4	17.9	26.9	Siemens Dimension
	IU/ml	0.022	0.018	0.026	
	mU/ml=IU/l	26.9	21.5	32.3	Siemens Immulite 2000
	IU/ml	0.027	0.022	0.032	
	mU/ml=IU/l	27.4	21.9	32.9	Siemens Immulite 1000
	IU/ml	0.027	0.022	0.032	
	mU/ml=IU/l	16.0	12.8	19.2	Beckman Dxl800
	IU/ml	0.016	0.013	0.019	
	mU/ml=IU/l	13.8	11.0	16.6	Diasorin Liaison
	IU/ml	0.014	0.011	0.017	
	mU/ml=IU/l	15.2	12.2	18.2	Roche Cobas Core EIA
	IU/ml	0.015	0.012	0.018	
	mU/ml=IU/l	15.6	12.5	18.7	Beckman Access
	IU/ml	0.016	0.013	0.019	
	mU/ml=IU/l	21.1	16.9	25.3	Tosoh Series
	IU/ml	0.021	0.017	0.025	
	mU/ml=IU/l	22.9	18.3	27.5	Vitros ECI
	IU/ml	0.023	0.018	0.028	
	mU/ml=IU/l	12.3	9.84	14.8	Roche STAT (Intact)
	IU/ml	0.012	0.010	0.014	
	mU/ml=IU/l	14.6	11.7	17.5	Roche hCG+Beta
	IU/ml	0.015	0.012	0.018	
mU/ml=IU/l	14.3	11.4	17.2	SNIBE Maglumi Analysers	
IU/ml	0.014	0.011	0.017		
mU/ml=IU/l	14.2	11.4	17.0	Radiometer AQT90 Flex	
IU/ml	0.014	0.011	0.017		

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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods
			low	high	
Total Beta hCG	mU/ml=IU/l	15.9	12.7	19.1	Beckman Access Total BhCG (5th IS)
	IU/ml	0.016	0.013	0.019	
	mU/ml=IU/l	16.4	13.1	19.7	Beckman Dxl Total BhCG (5th IS)
	IU/ml	0.016	0.013	0.019	
	mU/ml=IU/l	16.9	10.1	23.7	Siemens Centaur CP
	IU/ml	0.017	0.010	0.024	
	mU/ml=IU/l	16.8	13.4	20.1	Siemens Atellica IM
	IU/ml	0.017	0.013	0.021	
mU/ml=IU/l	12.8	10.2	15.4	Diasorin Liaison XL	
IU/ml	0.010	0.010	0.020		
Total T3	nmol/l	0.783	0.587	0.979	Abbott Architect
	ng/ml	0.510	0.382	0.638	
	ng/dl	51.0	38.2	63.8	
	nmol/l	0.637	0.478	0.796	BioMerieux Vidas
	ng/ml	0.415	0.311	0.519	
	ng/dl	41.5	31.1	51.9	
	nmol/l	0.662	0.497	0.827	Siemens Centaur XP/XPT/Classic
	ng/ml	0.431	0.323	0.539	
	ng/dl	43.1	32.3	53.9	
	nmol/l	0.617	0.463	0.771	Siemens Immulite 2000/2500
	ng/ml	0.402	0.301	0.503	
	ng/dl	40.2	30.1	50.3	
	nmol/l	0.617	0.463	0.771	Siemens Immulite 1000
	ng/ml	0.402	0.301	0.503	
	ng/dl	40.2	30.1	50.3	
	nmol/l	0.914	0.686	1.14	Beckman Dxl800
	ng/ml	0.595	0.447	0.743	
	ng/dl	59.5	44.7	74.3	
	nmol/l	1.31	0.983	1.64	Roche Elecsys
	ng/ml	0.853	0.640	1.07	
	ng/dl	85.3	64.0	107	
	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	0.920	0.690	1.15	Beckman Access	
ng/ml	0.599	0.449	0.749		
ng/dl	59.9	44.9	74.9		
nmol/l	0.630	0.473	0.788	Tosoh Series	
ng/ml	0.410	0.308	0.512		
ng/dl	41.0	30.8	51.2		
nmol/l	0.886	0.665	1.11	Vitros ECi	
ng/ml	0.577	0.433	0.721		
ng/dl	57.7	43.3	72.1		
nmol/l	0.592	0.444	0.740	CIS RIA Coated tube	
ng/ml	0.385	0.289	0.481		
ng/dl	38.5	28.9	48.1		

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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods
			low	high	
Total T3	nmol/l	1.42	1.07	1.78	Roche Cobas E411
	ng/ml	0.924	0.697	1.15	
	ng/dl	92.4	69.7	115	
	nmol/l	1.23	0.923	1.54	Roche Cobas 6000/8000
	ng/ml	0.801	0.601	1.00	
	ng/dl	80.1	60.1	100	
	nmol/l	0.494	0.371	0.618	SNIBE Maglumi Analysers
	ng/ml	0.322	0.242	0.402	
	ng/dl	32.2	24.2	40.2	
Total T4	nmol/l	32.9	24.7	41.1	Abbott Architect
	µg/dl	2.57	1.93	3.21	
	ng/ml	25.7	19.3	32.1	
	nmol/l	29.6	22.2	37.0	BioMerieux Vidas
	µg/dl	2.31	1.73	2.89	
	ng/ml	23.1	17.3	28.9	
	nmol/l	20.8	14.6	27.0	Siemens Centaur XP/XPT/Classic
	µg/dl	1.62	1.13	2.11	
	ng/ml	16.2	11.3	21.1	
	nmol/l	21.9	16.4	27.4	Siemens Immulite 2000/2500
	µg/dl	1.71	1.28	2.14	
	ng/ml	17.1	12.8	21.4	
	nmol/l	20.9	15.7	26.1	Beckman Dxl800
	µg/dl	1.63	1.22	2.04	
	ng/ml	16.3	12.2	20.4	
	nmol/l	35.3	26.5	44.1	Roche Elecsys
	µg/dl	2.75	2.07	3.43	
	ng/ml	27.5	20.7	34.3	
	nmol/l	24.2	18.2	30.3	Beckman Access
	µg/dl	1.89	1.42	2.36	
	ng/ml	18.9	14.2	23.6	
	nmol/l	23.8	17.9	29.8	Tosoh Series
	µg/dl	1.86	1.40	2.32	
	ng/ml	18.6	14.0	23.2	
	nmol/l	27.0	20.3	33.8	Vitros ECi
	µg/dl	2.11	1.58	2.64	
	ng/ml	21.1	15.8	26.4	
nmol/l	26.8	20.1	33.5	CIS RIA Coated tube	
µg/dl	2.09	1.57	2.61		
ng/ml	20.9	15.7	26.1		
nmol/l	36.2	27.2	45.3	Roche Cobas E411	
µg/dl	2.82	2.12	3.52		
ng/ml	28.2	21.2	35.2		
nmol/l	33.4	25.1	41.8	Roche Cobas 6000/8000	
µg/dl	2.61	1.96	3.26		
ng/ml	26.1	19.6	32.6		

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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Analyte	unit	Target	Range		methods	
			low	high		
Total T4	nmol/l	27.4	20.6	34.3	Immunotech IRMA	
	µg/dl	2.14	1.61	2.67		
	ng/ml	21.4	16.1	26.7		
	nmol/l	30.9	23.2	38.6	ELISA	
		µg/dl	2.41	1.81		3.01
		ng/ml	24.1	18.1		30.1
	nmol/l	30.2	22.7	37.8	SNIBE Maglumi Analysers	
		µg/dl	2.36	1.77		2.95
		ng/ml	23.6	17.7		29.5
	nmol/l	23.0	16.1	29.9	Siemens Centaur CP	
		µg/dl	1.79	1.25		2.33
		ng/ml	17.9	12.5		23.3
Valproic Acid	µmol/l	195	156	234	Abbott Architect	
	µg/ml	28.1	22.5	33.7		
	µmol/l	228	160	296	Siemens Centaur XP/XPT/Classic	
		µg/ml	32.9	23.0		42.8
	µmol/l	201	161	241	Siemens Dimension	
		µg/ml	29.0	23.2		34.8
	µmol/l	191	153	229	Siemens Immulite 2000/2500	
		µg/ml	27.6	22.1		33.1
	µmol/l	199	159	239	Siemens Immulite 1000	
		µg/ml	28.7	22.9		34.5
	µmol/l	200	160	240	Roche Integra	
		µg/ml	28.9	23.1		34.7
	µmol/l	203	162	244	Roche Cobas 6000/8000	
		µg/ml	29.3	23.4		35.2
	µmol/l	166	133	199	Beckman DxC	
		µg/ml	24.0	19.2		28.8
	µmol/l	195	156	234	Beckman AU400/600/640/2700/5400	
		µg/ml	28.1	22.5		33.7
µmol/l	243	194	291	Gravimetric		
	µg/ml	35.0	28.0		42.0	
Vancomycin	µmol/l	4.04	3.23	4.85	Roche Integra	
		µg/ml	6.00	4.80		7.20
	µmol/l	3.41	2.73	4.09	Ortho Vitros Microslide Systems	
		µg/ml	5.07	4.06		6.08
	µmol/l	3.27	2.62	3.92	Abbott Architect	
		µg/ml	4.86	3.89		5.83
	µmol/l	3.04	2.43	3.65	Siemens Dimension	
		µg/ml	4.52	3.61		5.43
	µmol/l	3.39	2.71	4.07	Roche Cobas 6000/8000	
		µg/ml	5.04	4.03		6.05
	µmol/l	3.16	2.53	3.79	Thermo Scientific QMS Vancomycin	
		µg/ml	4.69	3.76		5.62
µmol/l	3.43	2.74	4.12	Gravimetric		
	µg/ml	5.10	4.07		6.12	

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

Cat. No. IA2638 / IA2633 Lot No. 2145EC Size: 12 x 5ml / 4 x 5ml Expiry: 2022-11-28

Range					
Analyte	unit	Target	low	high	methods
Vitamin B12	pmol/l	147	118	176	Abbott Architect
	pg/ml	199	160	238	
	pmol/l	129	90.3	168	Siemens Centaur XP/XPT/Classic
	pg/ml	175	123	227	
	pmol/l	114	91.2	137	Siemens Immulite 2000
	pg/ml	154	124	184	
	pmol/l	95.7	76.6	115	Beckman Dxl800
	pg/ml	130	104	156	
	pmol/l	166	133	199	Roche Elecsys
	pg/ml	225	180	270	
	pmol/l	93.9	75.1	113	Beckman Access
	pg/ml	127	102	152	
	pmol/l	147	118	176	Tosoh Series
	pg/ml	199	160	238	
	pmol/l	149	119	179	Vitros Eci
	pg/ml	202	161	243	
	pmol/l	114	91.2	137	MP Biomedicals RIA
	pg/ml	154	124	184	
	pmol/l	181	145	217	Roche Cobas E411
	pg/ml	245	196	294	
pmol/l	137	110	164	Roche Cobas 6000/8000	
pg/ml	186	149	223		
pmol/l	132	92.4	172	Siemens Centaur CP	
pg/ml	179	125	233		