

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

<b>CAT. NO.</b> IA2638	<b>GTIN:</b> 05055273203844	<b>SIZE:</b> 12 x 5ml
<b>CAT. NO.</b> IA2633	<b>GTIN:</b> 05055273203837	<b>SIZE:</b> 4 x 5ml
<b>LOT NO.</b> I868EC	<b>EXPIRY:</b> 2021-11-28	

### 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 5ml of distilled water at +15°C to +25°C. Close the bottle and allow to stand for 30 minutes before use. Ensure contents are completely dissolved by swirling gently. Avoid formation of foam. Do not shake.
- Refer to the Control section of the individual analyser application.
- Refrigerate any unused material. Prior to reuse, mix contents thoroughly.

### MATERIALS PROVIDED

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

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

Cat. No. IA2638 / IA2633 Lot No. 1868EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

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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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

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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	nmol/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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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. 1868EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

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	



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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

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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	

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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

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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	

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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	
	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	
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	
nmol/l	2.29	1.26	3.32	Siemens Centaur XP/XPT/Classic	
ng/ml	0.720	0.394	1.04		

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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	

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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 DXI standardised 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. 1868EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

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. 1868EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

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 DxI800
	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 DxI800 Fast TSH
	µU/ml = mIU/l	0.104	0.083	0.125	Beckman DxI800
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. 1868EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

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. 1868EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

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. 1868EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

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. 1868EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

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. 1868EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

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 DxI800
	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		

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

<b>CAT. NO.</b> IA2639	<b>GTIN:</b> 05055273203851	<b>SIZE:</b> 12 x 5 ml
<b>CAT. NO.</b> IA2633	<b>GTIN:</b> 05055273203837	<b>SIZE:</b> 4 x 5 ml
<b>LOT NO.</b> 1869EC	<b>EXPIRY:</b> 2021-11-28	

### 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 2: 12 x 5 ml Tri-Level: 4 x 5 ml

### MATERIAL REQUIRED BUT NOT PROVIDED

Volumetric pipette

### VALUE ASSIGNMENT

Each batch of Immunoassay Premium 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).

27 Jun '19 ne

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

Cat. No. IA2639 / IA2633 Lot No. 1869EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
17-OH-Progesterone	nmol/l	15.1	11.3	18.9	DIAsource ELISA
	ng/ml	5.00	3.74	6.26	
25-OH Vitamin D	nmol/l	79.1	59.3	98.9	Siemens Centaur XP/XPT/Classic
	nmol/l	45.0	33.8	56.3	Roche Vitamin D Total
	nmol/l	47.1	35.3	58.9	Abbott Architect
	nmol/l	73.2	54.9	91.5	Vitros ECi
	nmol/l	57.5	43.1	71.9	BioMerieux Vidas
	nmol/l	45.8	34.4	57.3	Beckman Dxl 600/800
	nmol/l	49.8	37.4	62.3	Roche Vitamin D Total II
	nmol/l	61.9	46.4	77.4	Diasorin Liaison XL
	nmol/l	59.5	44.6	74.3	Diasorin Liaison
ACTH	pmol/l	4.86	3.65	6.08	Siemens Immulite 2000/2500
	pg/ml	22.1	16.6	27.6	
	pmol/l	2.44	1.83	3.05	Roche Cobas E411
	pg/ml	11.1	8.32	13.9	
	pmol/l	2.18	1.64	2.73	Roche Cobas 6000/8000
	pg/ml	9.91	7.45	12.4	
	pmol/l	4.84	3.63	6.05	Siemens Immulite 1000
pg/ml	22.0	16.5	27.5		
Aldosterone	pmol/l	339	254	424	Diasorin Liaison XL
	pg/ml	122	91.6	153	
Alpha-fetoprotein	KIU/l = IU/ml	47.3	37.8	56.8	BioMerieux Vidas
	ng/ml	57.2	45.7	68.7	
	KIU/l = IU/ml	42.6	34.1	51.1	Beckman Access
	ng/ml	51.5	41.3	61.7	
	KIU/l = IU/ml	49.0	39.2	58.8	Vitros ECi
	ng/ml	51.0	40.8	61.2	
	KIU/l = IU/ml	52.2	41.2	63.2	Siemens Centaur XP/XPT/Classic
	ng/ml	63.2	49.9	76.5	
	KIU/l = IU/ml	46.6	37.3	55.9	Siemens Immulite 2000/2500
	ng/ml	56.4	45.1	67.7	
	KIU/l = IU/ml	45.2	36.2	54.2	Abbott Architect
	ng/ml	54.7	43.8	65.6	
	KIU/l = IU/ml	41.2	33.0	49.4	Beckman Dxl800
	ng/ml	49.9	39.9	59.9	
	KIU/l = IU/ml	50.7	40.6	60.8	Roche Cobas 6000/8000
	ng/ml	61.3	49.1	73.5	
	KIU/l = IU/ml	51.6	41.3	61.9	Roche Cobas E411
	ng/ml	62.4	50.0	74.8	
	KIU/l = IU/ml	50.7	40.5	60.8	Siemens Atellica IM
	ng/ml	61.3	49.0	73.6	
KIU/l = IU/ml	50.6	40.5	60.7	Diasorin Liaison	
ng/ml	61.2	49.0	73.4		



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

Cat. No. IA2639 / IA2633 Lot No. 1869EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Alpha-fetoprotein	KIU/l = IU/ml	49.3	39.4	59.2	Diasorin Liaison XL
	ng/ml	59.7	47.7	71.6	
Amikacin	µmol/l	15.3	12.2	18.3	Gravimetric
	µg/ml	8.93	7.14	10.7	
Androstenedione	nmol/l	15.3	11.5	19.1	Siemens Immulite 2000
	ng/ml	4.39	3.30	5.48	
	nmol/l	9.31	6.98	11.6	Diasorin Liaison XL
	ng/ml	2.67	2.00	3.33	
Beta-2-microglobulin	µg/ml = mg/l	3.29	2.63	3.95	Siemens Immulite 1000
	µg/ml = mg/l	2.92	2.34	3.50	Siemens Immulite 2000/2500
	µg/ml = mg/l	3.28	2.62	3.94	Abbott Architect
	µg/ml = mg/l	3.33	2.66	4.00	Roche Cobas 6000/8000
	µg/ml = mg/l	3.05	2.44	3.66	Diasorin Liaison
C-Peptide	nmol/l	2.070	1.550	2.590	Siemens Immulite 2000/2500
	ng/ml	6.25	4.68	7.82	
	nmol/l	2.050	1.540	2.560	Roche Cobas 6000/8000
	ng/ml	6.19	4.65	7.73	
	nmol/l	2.020	1.520	2.530	Roche Cobas E411
	ng/ml	6.10	4.59	7.61	
	nmol/l	2.140	1.605	2.675	Diasorin Liaison XL
	ng/ml	6.46	4.85	8.08	
Carbamazepine	µmol/l	40.7	28.5	52.9	Siemens Centaur XP/XPT/Classic
	µg/ml	9.62	6.73	12.5	
	µmol/l	37.1	29.7	44.5	Abbott Architect
	µg/ml	8.77	7.02	10.5	
	µmol/l	36.4	29.1	43.7	Roche Cobas 6000/8000
	µg/ml	8.60	6.88	10.3	
	µmol/l	38.5	30.8	46.2	Gravimetric
	µg/ml	9.10	7.28	10.9	
Carcinoembryonic Antigen (CEA)	ng/ml = µg/l	23.7	19.0	28.4	BioMerieux Vidas
	ng/ml = µg/l	30.7	24.6	36.8	Siemens Immulite 1000
	ng/ml = µg/l	24.1	19.3	28.9	Vitros ECi
	ng/ml = µg/l	22.8	18.2	27.4	Beckman Access
	ng/ml = µg/l	25.5	17.3	33.7	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	28.3	22.6	34.0	Siemens Immulite 2000/2500
	ng/ml = µg/l	26.6	21.3	31.9	Abbott Architect
	ng/ml = µg/l	20.0	16.0	24.0	Diasorin Liaison
	ng/ml = µg/l	21.6	17.3	25.9	Beckman Dxl800
	ng/ml = µg/l	20.5	16.4	24.6	Roche Cobas 6000/8000
	ng/ml = µg/l	20.7	16.6	24.8	Roche Cobas E411
	ng/ml = µg/l	26.0	20.8	31.2	SNIBE Maglumi Analysers
	ng/ml = µg/l	23.8	19.0	28.5	Siemens Atellica IM
ng/ml = µg/l	20.5	16.4	24.6	Diasorin Liaison XL	

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

Cat. No. IA2639 / IA2633 Lot No. 1869EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Cortisol	nmol/l	655	491	819	Siemens Immulite 1000
	µg/dl	23.6	17.7	29.5	
	nmol/l	767	575	959	Roche Elecsys
	µg/dl	27.6	20.7	34.5	
	nmol/l	718	495	941	Siemens Centaur XP/XPT/Classic
	µg/dl	25.8	17.8	33.8	
	nmol/l	626	470	783	Siemens Immulite 2000/2500
	µg/dl	22.5	16.9	28.1	
	nmol/l	584	438	730	Vitros ECI
	µg/dl	21.0	15.8	26.2	
	nmol/l	553	415	691	Abbott Architect
	µg/dl	19.9	14.9	24.9	
	nmol/l	600	450	750	Beckman DxI800
	µg/dl	21.6	16.2	27.0	
	nmol/l	761	571	951	Roche Cobas 6000/8000
	µg/dl	27.4	20.6	34.2	
	nmol/l	700	525	875	Roche Cobas E411
	µg/dl	25.2	18.9	31.5	
nmol/l	651	488	814	Roche Cobas 4000/e411 Gen II	
µg/dl	23.4	17.6	29.2		
nmol/l	602	452	753	Roche Cobas 6000/8000 Gen II	
µg/dl	21.7	16.3	27.1		
nmol/l	753	565	941	Siemens Atellica IM	
µg/dl	27.1	20.3	33.9		
nmol/l	714	536	893	Diasorin Liaison XL	
µg/dl	25.7	19.3	32.1		
nmol/l	628	471	785	Diasorin Liaison	
µg/dl	22.6	17.0	28.3		
DHEA-S	µmol/l	11.2	8.96	13.4	Siemens Immulite 2000/2500
	µmol/l	12.1	9.68	14.5	Abbott Architect
	µmol/l	10.3	8.24	12.4	Beckman DxI800
	µmol/l	11.1	7.22	15.0	Siemens Centaur XP/XPT/Classic
	µmol/l	15.2	12.2	18.2	Roche Cobas E411
	µmol/l	14.9	11.9	17.9	Roche Cobas 6000/8000
	µmol/l	11.4	9.14	13.7	Siemens Atellica IM
	µmol/l	11.4	9.12	13.7	Diasorin Liaison XL
Digoxin	nmol/l	3.19	2.55	3.83	Siemens Immulite 2000/2500
	ng/ml	2.49	1.99	2.99	
	nmol/l	3.22	2.48	3.96	Siemens Centaur XP/XPT/Classic
	ng/ml	2.51	1.93	3.09	
	nmol/l	2.51	2.01	3.01	Abbott Architect
	ng/ml	1.96	1.57	2.35	
	nmol/l	2.98	2.38	3.58	Beckman DxI800
	ng/ml	2.33	1.86	2.80	
nmol/l	3.07	2.46	3.68	Gravimetric	
ng/ml	2.40	1.92	2.87		

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

Cat. No. IA2639 / IA2633 Lot No. 1869EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Ethosuximide	µmol/l	360	288	431	Gravimetric
	µg/ml	51.0	40.8	61.1	
Ferritin	ng/ml = µg/l	72.7	58.2	87.2	BioMerieux Vidas
	ng/ml = µg/l	76.8	61.4	92.2	Siemens Immulite 1000
	ng/ml = µg/l	109	87.2	131	Roche Elecsys
	ng/ml = µg/l	68.5	54.8	82.2	Beckman Access
	ng/ml = µg/l	62.9	50.3	75.5	Vitros ECI
	ng/ml = µg/l	87.9	65.9	110	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	85.8	68.6	103	Siemens Immulite 2000/2500
	ng/ml = µg/l	107	85.6	128	Abbott Architect
	ng/ml = µg/l	104	83.2	125	Roche Modular E170
	ng/ml = µg/l	67.7	54.2	81.2	Beckman Dxl800
	ng/ml = µg/l	88.0	70.4	106	Siemens Atellica IM
	ng/ml = µg/l	99.1	79.3	119	Diasorin Liaison
ng/ml = µg/l	106	84.8	127	Diasorin Liaison XL	
Folate	nmol/l	13.7	10.4	17.0	Beckman Access
	ng/ml	6.04	4.59	7.49	
	nmol/l	9.99	7.59	12.4	Siemens Immulite 2000
	ng/ml	4.41	3.35	5.47	
	nmol/l	9.69	7.36	12.0	Vitros ECI
	ng/ml	4.27	3.25	5.29	
	nmol/l	12.2	9.27	15.1	Abbott Architect
	ng/ml	5.38	4.09	6.67	
	nmol/l	26.8	17.4	36.2	Siemens Centaur XP/XPT/Classic (enhanced kit)
	ng/ml	11.8	7.67	15.9	
	nmol/l	14.0	10.6	17.4	Beckman Dxl800
	ng/ml	6.17	4.67	7.67	
	nmol/l	13.0	9.88	16.1	Roche Cobas E411
	ng/ml	5.73	4.36	7.10	
	nmol/l	12.7	9.65	15.7	Roche Cobas 6000/8000 Folate III
	ng/ml	5.60	4.26	6.94	
nmol/l	24.2	18.4	30.0	Siemens Atellica IM	
ng/ml	10.7	8.11	13.2		
Free T3	pmol/l	15.0	11.3	18.8	Roche Elecsys
	ng/dl	0.975	0.735	1.22	
	pg/ml	9.77	7.36	12.2	
	pmol/l	11.0	8.25	13.8	Beckman Access
	ng/dl	0.715	0.536	0.894	
	pg/ml	7.16	5.37	8.95	
	pmol/l	30.7	23.0	38.4	Vitros ECI
	ng/dl	2.00	1.50	2.50	
	pg/ml	20.0	15.0	25.0	
	pmol/l	13.2	7.92	18.5	Siemens Centaur XP/XPT/Classic
	ng/dl	0.858	0.515	1.20	
	pg/ml	8.59	5.15	12.0	
	pmol/l	9.32	6.99	11.7	Siemens Immulite 2000/2500
	ng/dl	0.606	0.454	0.758	
pg/ml	6.07	4.55	7.59		

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

Cat. No. IA2639 / IA2633 Lot No. 1869EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Free T3	pmol/l	11.2	8.40	14.0	Abbott Architect
	ng/dl	0.728	0.546	0.910	
	pg/ml	7.29	5.47	9.11	
	pmol/l	17.4	13.1	21.8	Diasorin Liaison
	ng/dl	1.13	0.852	1.41	
	pg/ml	11.3	8.53	14.1	
	pmol/l	9.53	7.15	11.9	Beckman Dxl800
	ng/dl	0.619	0.465	0.773	
	pg/ml	6.20	4.65	7.75	
	pmol/l	14.9	11.2	18.6	Roche Cobas E411
	ng/dl	0.969	0.728	1.21	
	pg/ml	9.70	7.29	12.1	
	pmol/l	15.0	11.3	18.8	Roche Cobas 6000/8000
	ng/dl	0.975	0.735	1.22	
	pg/ml	9.77	7.36	12.2	
	pmol/l	12.3	9.23	15.4	SNIBE Maglumi Analysers
	ng/dl	0.800	0.600	1.00	
	pg/ml	8.01	6.01	10.0	
	pmol/l	12.7	7.62	17.8	Siemens Centaur CP
	ng/dl	0.826	0.496	1.16	
	pg/ml	8.27	4.96	11.6	
	pmol/l	13.4	10.0	16.7	Siemens Atellica IM
	ng/dl	0.870	0.650	1.09	
	pg/ml	8.71	6.51	10.9	
pmol/l	18.3	13.7	22.9	Diasorin Liaison XL	
ng/dl	1.19	0.890	1.49		
pg/ml	11.9	8.92	14.9		
Free T4	pmol/l	45.9	34.4	57.4	Siemens Immulite 1000
	ng/dl	3.58	2.68	4.48	
	pg/ml	35.8	26.8	44.8	
	pmol/l	43.0	32.3	53.8	Roche Elecsys
	ng/dl	3.35	2.52	4.18	
	pg/ml	33.5	25.2	41.8	
	pmol/l	33.6	25.2	42.0	Beckman Access
	ng/dl	2.62	1.97	3.27	
	pg/ml	26.2	19.7	32.7	
	pmol/l	78.0	58.5	97.5	Vitros ECi
	ng/dl	6.08	4.56	7.60	
	pg/ml	60.8	45.6	76.0	
	pmol/l	30.2	22.7	37.8	Siemens Centaur XP/XPT/Classic
	ng/dl	2.36	1.77	2.95	
	pg/ml	23.6	17.7	29.5	
	pmol/l	42.9	32.2	53.6	Siemens Immulite 2000/2500
	ng/dl	3.35	2.51	4.19	
	pg/ml	33.5	25.1	41.9	

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

Cat. No. IA2639 / IA2633 Lot No. 1869EC Size: 12 x 5ml / 4 x 5ml Expiry 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Free T4	pmol/l	29.7	22.3	37.1	Abbott Architect
	ng/dl	2.32	1.74	2.90	
	pg/ml	23.2	17.4	29.0	
	pmol/l	49.6	37.2	62.0	Diasorin Liaison
	ng/dl	3.87	2.90	4.84	
	pg/ml	38.7	29.0	48.4	
	pmol/l	34.5	25.9	43.1	Beckman Dxl800
	ng/dl	2.69	2.02	3.36	
	pg/ml	26.9	20.2	33.6	
	pmol/l	39.8	29.9	49.8	Roche Cobas 6000/8000
	ng/dl	3.10	2.33	3.87	
	pg/ml	31.0	23.3	38.7	
	pmol/l	40.6	30.5	50.8	Roche Cobas E411
	ng/dl	3.17	2.38	3.96	
	pg/ml	31.7	23.8	39.6	
	pmol/l	45.4	34.1	56.8	Biomerieux Vidas FT4N Kit
	ng/dl	3.54	2.66	4.42	
	pg/ml	35.4	26.6	44.2	
	pmol/l	32.3	24.2	40.4	Siemens Centaur CP
	ng/dl	2.52	1.89	3.15	
	pg/ml	25.2	18.9	31.5	
pmol/l	32.5	24.4	40.6	Siemens Atellica IM	
ng/dl	2.54	1.90	3.17		
pg/ml	25.4	19.0	31.7		
pmol/l	53.4	40.1	66.8	Diasorin Liaison XL	
ng/dl	4.17	3.13	5.21		
pg/ml	41.7	31.3	52.1		
FSH	mU/ml	29.8	23.8	35.8	BioMerieux Vidas
	mU/ml	28.7	23.0	34.4	Beckman Access
	mU/ml	25.7	20.6	30.8	Roche/BM Elecsys
	mU/ml	21.1	16.9	25.3	Vitros ECi
	mU/ml	35.6	26.7	44.5	Siemens Centaur XP/XPT/Classic
	mU/ml	27.9	22.3	33.5	Siemens Immulite 2000/2500
	mU/ml	24.1	19.3	28.9	Abbott Architect
	mU/ml	32.0	25.6	38.4	Diasorin Liaison
	mU/ml	29.7	23.8	35.6	Beckman Dxl800
	mU/ml	27.7	22.2	33.2	Roche Cobas E411
	mU/ml	26.1	20.9	31.3	Roche Cobas 6000/8000
	mU/ml	37.0	29.6	44.4	Siemens Atellica IM
	mU/ml	39.6	31.7	47.5	Diasorin Liaison XL
Gentamicin	µmol/l	8.16	6.53	9.79	Gravimetric
	µg/ml	3.90	3.12	4.68	
Growth Hormone (GH)	µU/ml	18.4	14.7	22.1	Siemens Immulite 1000
	ng/ml	6.13	4.90	7.36	
	µU/ml	19.3	15.4	23.2	Siemens Immulite 2000/2500
	ng/ml	6.43	5.13	7.73	

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

Cat. No. IA2639 / IA2633 Lot No. 1869EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Growth Hormone (GH)	µU/ml	14.6	11.7	17.5	Beckman Dxl800
	ng/ml	4.86	3.90	5.82	
	µU/ml	16.1	12.9	19.3	Diasorin Liaison
	ng/ml	5.36	4.30	6.42	
	µU/ml	16.8	13.4	20.2	Roche Cobas 6000/8000
	ng/ml	5.59	4.46	6.72	
Immunoglobulin E	µU/ml	15.6	12.5	18.7	Diasorin Liaison XL
	ng/ml	5.19	4.16	6.23	
	KIU/I = IU/ml	108	86.4	130	Siemens Immulite 1000
	KIU/I = IU/ml	98.9	79.1	119	BioMerieux Vidas
	KIU/I = IU/ml	101	60.6	141	Siemens Centaur XP/XPT/Classic
	KIU/I = IU/ml	102	81.6	122	Siemens Immulite 2000/2500
	KIU/I = IU/ml	101	80.8	121	Abbott Architect
	KIU/I = IU/ml	112	89.6	134	Roche Cobas E411
Insulin	KIU/I = IU/ml	112	89.6	134	Roche Cobas 6000/8000
	KIU/I = IU/ml	103	82.0	123	Siemens Atellica IM
	mU/l	18.2	13.7	22.7	Siemens Centaur XP/XPT/Classic
	µU/ml	18.2	13.7	22.7	
	mU/l	15.3	11.5	19.1	Abbott Architect
	µU/ml	15.3	11.5	19.1	
	mU/l	16.3	12.2	20.4	Roche Cobas E411
	µU/ml	16.3	12.2	20.4	
	mU/l	16.6	12.5	20.8	Roche Cobas 6000/8000
	µU/ml	16.6	12.5	20.7	
	mU/l	14.5	10.9	18.1	Beckman Dxl 600/800
	µU/ml	14.5	10.9	18.1	
	mU/l	18.5	13.8	23.1	Siemens Atellica IM
	µU/ml	18.5	13.8	23.1	
Luteinising Hormone (LH)	mU/l	20.6	15.5	25.8	Diasorin Liaison
	µU/ml	20.6	15.5	25.8	
	mU/l	20.9	15.7	26.1	Diasorin Liaison XL
	µU/ml	20.9	15.7	26.1	
	mU/ml	23.7	19.0	28.4	Beckman Access
	mU/ml	29.6	23.7	35.5	BioMerieux Vidas
	mU/ml	50.0	40.0	60.0	Siemens Immulite 1000
	mU/ml	33.0	26.4	39.6	Roche Elecsys
	mU/ml	47.0	37.6	56.4	Vitros ECi
	mU/ml	33.8	26.0	41.6	Siemens Centaur XP/XPT/Classic
	mU/ml	49.0	39.2	58.8	Siemens Immulite 2000
	mU/ml	28.0	22.4	33.6	Abbott Architect
	mU/ml	40.4	32.3	48.5	Diasorin Liaison
	mU/ml	23.9	19.1	28.7	Beckman Dxl800
mU/ml	36.0	28.8	43.2	Roche Cobas E411	
mU/ml	36.4	29.1	43.7	Roche Cobas 6000/8000	
mU/ml	39.5	31.6	47.4	Diasorin Liaison XL	

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

Cat. No. IA2639 / IA2633 Lot No. 1869EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Luteinising Hormone	mU/ml	34.8	27.9	41.8	Siemens Atellica IM
Oestradiol	pmol/l	1361	1089	1633	BioMerieux Vidas
	pg/ml	370	296	444	
	pmol/l	917	734	1100	Roche Elecsys (Estradiol II)
	pg/ml	249	200	298	
	pmol/l	1207	966	1448	Vitros Eci
	pg/ml	328	263	393	
	pmol/l	1241	993	1489	Beckman Access
	pg/ml	338	270	406	
	pmol/l	1283	770	1796	Siemens Centaur XP/XPT/Classic
	pg/ml	349	209	489	
	pmol/l	1159	927	1391	Siemens Immulite 2000/2500
	pg/ml	315	252	378	
	pmol/l	837	670	1004	Abbott Architect
	pg/ml	228	182	274	
	pmol/l	1214	971	1457	Beckman Dxl800
	pg/ml	330	264	396	
	pmol/l	948	758	1138	Roche Cobas 6000/8000 (Estradiol II)
	pg/ml	258	206	310	
	pmol/l	952	762	1142	Roche Cobas 4000/E411 (Estradiol II)
	pg/ml	259	207	311	
	pmol/l	1234	740	1728	Siemens Centaur XP/XPT/Classic Enhanced (eE2)
	pg/ml	336	202	470	
	pmol/l	925	740	1110	Roche Cobas 6000/8000 (Estradiol III)
pg/ml	252	201	303		
pmol/l	934	747	1121	Roche Elecsys (Estradiol III)	
pg/ml	254	203	305		
pmol/l	923	738	1108	Roche Cobas 4000/E411 (Estradiol III)	
pg/ml	251	201	301		
pmol/l	1244	996	1493	Siemens Atellica IM	
pg/ml	338	271	406		
pmol/l	785	628	942	Diasorin Liaison	
pg/ml	214	171	256		
pmol/l	881	705	1057	Diasorin Liaison XL	
pg/ml	240	192	288		
Paracetamol	mmol/l	0.319	0.255	0.383	Roche Cobas 6000/8000
	mg/l	48.3	38.6	58.0	
	mmol/l	0.348	0.280	0.420	Gravimetric
	mg/l	52.6	42.4	63.5	
Phenobarbital	µmol/l	78.4	62.7	94.1	Abbott Architect
	µg/ml	18.2	14.5	21.9	
	µmol/l	75.9	60.7	91.1	Siemens Immulite 2000/2500
	µg/ml	17.6	14.1	21.1	
	µmol/l	76.7	61.4	92.0	Beckman AU400/600/640/2700/5400
	µg/ml	17.8	14.2	21.4	
	µmol/l	77.6	62.1	93.1	Gravimetric
	µg/ml	18.0	14.4	21.6	

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

Cat. No. IA2639 / IA2633 Lot No. 1869EC Size: 12 x 5ml / 4 x 5ml Expiry 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Phenytoin	µmol/l	66.5	53.2	79.8	Abbott Architect
	µg/ml	16.8	13.4	20.2	
	µmol/l	65.0	52.0	78.0	Roche Cobas 6000/8000
	µg/ml	16.4	13.1	19.7	
	µmol/l	71.3	57.0	85.6	Gravimetric
Primidone	µmol/l	22.5	18.0	27.0	Gravimetric
	µg/ml	4.92	3.93	5.89	
Progesterone	nmol/l	24.9	19.9	29.9	Siemens Immulite 1000
	ng/ml	7.79	6.23	9.35	
	nmol/l	43.2	34.6	51.8	BioMerieux Vidas
	ng/ml	13.5	10.8	16.2	
	nmol/l	38.0	30.4	45.6	Vitros ECI
	ng/ml	11.9	9.52	14.3	
	nmol/l	24.9	17.4	32.4	Siemens Centaur XP/XPT/Classic
	ng/ml	7.79	5.45	10.1	
	nmol/l	24.1	19.3	28.9	Siemens Immulite 2000/2500
	ng/ml	7.54	6.04	9.04	
	nmol/l	26.1	20.9	31.3	Abbott Architect
	ng/ml	8.17	6.54	9.80	
	nmol/l	34.8	27.8	41.8	Beckman Dxl Prog Cal 33555
	ng/ml	10.9	8.70	13.1	
	nmol/l	27.4	21.9	32.9	Diasorin Liaison
	ng/ml	8.58	6.85	10.3	
	nmol/l	33.9	27.1	40.7	Roche Cobas 4000/e411 (Prog. II)
	ng/ml	10.6	8.48	12.7	
	nmol/l	33.9	27.1	40.7	Roche Cobas 6000/8000 (Prog. II)
	ng/ml	10.6	8.48	12.7	
nmol/l	26.7	21.4	32.0	Beckman Dxl Prog DE Cal A80773	
ng/ml	8.36	6.70	10.0		
nmol/l	33.5	26.8	40.2	Roche Cobas 6000/8000 (Prog. III)	
ng/ml	10.5	8.39	12.6		
nmol/l	34.0	27.2	40.8	Roche Cobas 4000/e411 (Prog. III)	
ng/ml	10.6	8.51	12.7		
nmol/l	27.0	21.6	32.3	Siemens Atellica IM	
ng/ml	8.44	6.76	10.1		
nmol/l	26.8	21.4	32.2	Diasorin Liaison XL	
ng/ml	8.39	6.70	10.1		
Prolactin	µU/ml	532	426	638	Beckman Access
	µU/ml	809	647	971	BioMerieux Vidas
	µU/ml	528	422	634	Siemens Immulite 1000
	µU/ml	524	419	629	Vitros ECI
	µU/ml	531	414	648	Siemens Centaur XP/XPT/Classic
	µU/ml	580	464	696	Siemens Immulite 2000/2500
	µU/ml	623	498	748	Abbott Architect



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

Cat. No. IA2639 / IA2633 Lot No. 1869EC Size: 12 x 5ml / 4 x 5ml Expiry 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Prolactin	µU/ml	655	524	786	Diasorin Liaison
	µU/ml	492	394	590	Beckman DxI800
	µU/ml	601	481	721	Roche Elecsys/E170/Cobas 6000/8000 PRLII
	µU/ml	633	506	760	Roche Cobas E411
	µU/ml	596	477	715	Roche Cobas 6000/8000
	µU/ml	612	490	734	Abbott Architect restandardised
	µU/ml	494	396	593	Siemens Atellica IM
	µU/ml	626	501	751	Diasorin Liaison XL
PSA Free	ng/ml = µg/l	8.16	6.12	10.2	Siemens Immulite 2000/2500
	ng/ml = µg/l	10.2	7.65	12.8	Abbott Architect
	ng/ml = µg/l	10.4	7.80	13.0	Beckman Access standardised to Hybritech
	ng/ml = µg/l	8.05	6.04	10.1	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	5.28	3.96	6.60	Diasorin Liaison
	ng/ml = µg/l	9.52	7.14	11.9	Beckman DXI standardised to Hybritech
	ng/ml = µg/l	7.25	5.44	9.06	Roche Cobas E411
	ng/ml = µg/l	6.97	5.23	8.71	Roche Cobas 6000/8000
	ng/ml = µg/l	8.27	6.20	10.3	Siemens Atellica IM
	ng/ml = µg/l	5.43	4.07	6.79	Diasorin Liaison XL
PSA Total	ng/ml = µg/l	6.02	4.52	7.53	Siemens Immulite 1000 1st generation
	ng/ml = µg/l	12.7	9.53	15.9	Roche Elecsys
	ng/ml = µg/l	14.1	10.6	17.6	Beckman Access standardised to Hybritech
	ng/ml = µg/l	10.7	8.03	13.4	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	11.4	8.55	14.3	bioMerieux VIDAS TPSA
	ng/ml = µg/l	5.75	4.31	7.19	Siemens Immulite 2000/2500 1st generation
	ng/ml = µg/l	9.48	7.11	11.9	Abbott Architect
	ng/ml = µg/l	11.6	8.70	14.5	Vitros ECi
	ng/ml = µg/l	7.23	5.42	9.04	Diasorin Liaison
	ng/ml = µg/l	13.9	10.4	17.4	Beckman Access standardised to WHO IRP96/670
	ng/ml = µg/l	13.9	10.4	17.4	Beckman DxI standardised to Hybritech
	ng/ml = µg/l	11.2	8.40	14.0	Beckman DxI800 standardised to WHO IRP96/670
	ng/ml = µg/l	13.7	10.3	17.1	Roche Cobas E411
	ng/ml = µg/l	13.1	9.83	16.4	Roche Cobas 6000/8000
	ng/ml = µg/l	12.3	9.23	15.4	SNIBE Maglumi Analysers
	ng/ml = µg/l	12.9	9.68	16.1	Ortho Vitros 3600/5600/ECi PSA II
	ng/ml = µg/l	10.3	7.73	12.9	Siemens Centaur CP
ng/ml = µg/l	11.5	8.59	14.3	Siemens Atellica IM	
ng/ml = µg/l	7.05	5.29	8.81	Diasorin Liaison XL	
Salicylate	mmol/l	1.22	0.980	1.46	Gravimetric
	mg/dl	16.8	13.5	20.1	
SHBG	nmol/l	37.7	30.2	45.2	Siemens Centaur XP/XPT/Classic
	nmol/l	34.1	27.3	40.9	Siemens Immulite 2000/2500
	nmol/l	33.5	26.8	40.2	Abbott Architect
	nmol/l	37.4	29.9	44.9	Roche Cobas E411
	nmol/l	36.0	28.8	43.2	Roche Cobas 6000/8000
	nmol/l	32.5	26.0	39.0	Beckman DxI800
T Uptake	%U	36.9	30.3	43.5	Siemens Immulite 2000

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

Cat. No. IA2639 / IA2633 Lot No. 1869EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Testosterone	nmol/l	21.1	16.9	25.3	Vitros ECI
	ng/ml	6.08	4.87	7.29	
	ng/dl	608	487	729	
	nmol/l	14.3	10.0	18.6	Siemens Centaur XP/XPT/Classic
	ng/ml	4.12	2.88	5.36	
	ng/dl	412	288	536	
	nmol/l	17.8	14.2	21.4	Siemens Immulite 2000/2500
	ng/ml	5.13	4.09	6.17	
	ng/dl	513	409	617	
	nmol/l	15.6	12.5	18.7	Abbott Architect
	ng/ml	4.49	3.60	5.38	
	ng/dl	449	360	538	
	nmol/l	15.9	12.7	19.1	Beckman Access
	ng/ml	4.58	3.66	5.50	
	ng/dl	458	366	550	
	nmol/l	14.0	11.2	16.8	Beckman Dxl800
	ng/ml	4.03	3.23	4.83	
	ng/dl	403	323	483	
	nmol/l	17.5	14.0	21.0	Roche Elecsys Test II
	ng/ml	5.04	4.03	6.05	
	ng/dl	504	403	605	
	nmol/l	17.5	14.0	21.0	Roche Cobas 4000/e411 Test II
	ng/ml	5.04	4.03	6.05	
	ng/dl	504	403	605	
	nmol/l	17.5	14.0	21.0	Roche Cobas 6000 Test 2
	ng/ml	5.04	4.03	6.05	
	ng/dl	504	403	605	
	nmol/l	16.1	12.9	19.3	Abbott Architect 2nd Generation
	ng/ml	4.64	3.72	5.56	
	ng/dl	464	372	556	
nmol/l	12.6	10.1	15.1	BioMerieux Vidas Testosterone II	
ng/ml	3.63	2.91	4.35		
ng/dl	363	291	435		
nmol/l	15.7	11.0	20.4	Siemens Centaur TST II	
ng/ml	4.52	3.16	5.88		
ng/dl	452	316	588		
nmol/l	15.2	12.1	18.2	Siemens Atellica IM	
ng/ml	4.37	3.48	5.24		
ng/dl	437	348	524		
nmol/l	9.77	7.82	11.7	Diasorin Liaison	
ng/ml	2.81	2.25	3.37		
ng/dl	281	225	337		
nmol/l	7.96	6.37	9.55	Diasorin Liaison XL	
ng/ml	2.29	1.83	2.75		
ng/dl	229	183	275		
Theophylline	µmol/l	83.8	67.0	101	Gravimetric
	µg/ml	15.1	12.1	18.2	

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

Cat. No. IA2639 / IA2633 Lot No. 1869EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Thyroglobulin	ng/ml	16.9	12.7	21.1	Siemens Immulite 2000
	ng/ml	34.0	25.5	42.5	Roche Cobas 6000/8000
	ng/ml	33.6	25.2	42.0	Roche Cobas 6000 TGII
	ng/ml	32.5	24.4	40.6	Roche Cobas 4000/E411 TGII
	ng/ml	10.4	7.80	13.0	Diasorin Liaison
	ng/ml	12.4	9.30	15.5	Diasorin Liaison XL
Thyroid Stimulating Hormone	µU/ml = mIU/l	2.57	2.06	3.08	bioMerieux VIDAS TSH
	µU/ml = mIU/l	2.54	2.03	3.05	Siemens Immulite 1000
	µU/ml = mIU/l	2.77	2.22	3.32	Roche Elecsys
	µU/ml = mIU/l	2.46	1.97	2.95	Beckman Access hyperTSH 3rd Generation
	µU/ml = mIU/l	3.14	2.51	3.77	Vitros ECI
	µU/ml = mIU/l	2.72	1.85	3.59	Siemens Centaur XP/XPT/Classic
	µU/ml = mIU/l	2.74	2.19	3.29	Siemens Immulite 2000/2500
	µU/ml = mIU/l	2.32	1.86	2.78	Abbott Architect
	µU/ml = mIU/l	3.19	2.55	3.83	Diasorin Liaison
	µU/ml = mIU/l	2.35	1.88	2.82	Beckman Access Fast TSH
	µU/ml = mIU/l	2.75	2.20	3.30	Roche Cobas E411
	µU/ml = mIU/l	2.81	2.25	3.37	Roche Cobas 6000/8000
	µU/ml = mIU/l	2.46	1.97	2.95	Beckman Dxl800 Hyper TSH
	µU/ml = mIU/l	2.85	2.28	3.42	SNIBE Maglumi Analysers
	µU/ml = mIU/l	2.58	1.75	3.41	Siemens Centaur XP/XPT/Classic TSH3-Ultra
	µU/ml = mIU/l	2.43	1.94	2.92	Beckman Dxl 600/800 Access (3rd IS)
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	33.1	26.5	39.7	BioMerieux Vidas
	IU/ml	0.033	0.027	0.039	
	mU/ml=IU/l	43.7	35.0	52.4	Siemens Immulite 1000
	IU/ml	0.044	0.035	0.053	
	mU/ml=IU/l	24.8	19.8	29.8	Beckman Access
	IU/ml	0.025	0.020	0.030	
	mU/ml=IU/l	38.6	30.9	46.3	Vitros ECI
	IU/ml	0.039	0.031	0.047	
	mU/ml=IU/l	25.4	15.2	35.6	Siemens Centaur XP/XPT/Classic
	IU/ml	0.025	0.015	0.036	
	mU/ml=IU/l	49.4	39.5	59.3	Siemens Immulite 2000
	IU/ml	0.049	0.040	0.058	
	mU/ml=IU/l	22.3	17.8	26.8	Abbott Architect
	IU/ml	0.022	0.018	0.026	
	mU/ml=IU/l	38.3	30.6	46.0	Siemens Dimension
	IU/ml	0.038	0.031	0.045	
mU/ml=IU/l	24.4	19.5	29.3	Beckman Dxl800	
IU/ml	0.024	0.020	0.028		
mU/ml=IU/l	20.2	16.2	24.2	Roche STAT (Intact)	
IU/ml	0.020	0.016	0.024		

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

Cat. No. IA2639 / IA2633 Lot No. 1869EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods	
			low	high		
Total Beta hCG	mU/ml=IU/l	25.0	20.0	30.0	Roche hCG+Beta	
	IU/ml	0.025	0.020	0.030		
	mU/ml=IU/l	26.7	21.4	32.0	SNIBE Maglumi Analysers	
	IU/ml	0.027	0.021	0.033		
	mU/ml=IU/l	23.4	18.7	28.1	Radiometer AQT90 Flex	
	IU/ml	0.023	0.019	0.027		
	mU/ml=IU/l	24.7	19.8	29.6	Beckman Access Total BhCG (5th IS)	
	IU/ml	0.025	0.020	0.030		
	mU/ml=IU/l	24.9	19.9	29.9	Beckman Dxl Total BhCG (5th IS)	
	IU/ml	0.025	0.020	0.030		
	mU/ml=IU/l	26.2	21.0	31.5	Siemens Atellica IM	
	IU/ml	0.026	0.021	0.031		
Total T3	mU/ml=IU/l	24.0	19.2	28.8	Diasorin Liaison	
	IU/ml	0.020	0.020	0.030		
	mU/ml=IU/l	22.6	18.1	27.1	Diasorin Liaison XL	
	IU/ml	0.020	0.020	0.030		
	nmol/l	3.79	2.84	4.74	BioMerieux Vidas	
		ng/ml	2.47	1.85		3.09
		ng/dl	247	185		309
	nmol/l	3.51	2.63	4.39	Siemens Immulite 1000	
		ng/ml	2.29	1.71		2.87
		ng/dl	229	171		287
	nmol/l	3.19	2.39	3.99	Beckman Access	
		ng/ml	2.08	1.56		2.60
		ng/dl	208	156		260
	nmol/l	4.10	3.08	5.12	Siemens Centaur XP/XPT/Classic	
		ng/ml	2.67	2.00		3.34
		ng/dl	267	200		334
	nmol/l	3.26	2.45	4.08	Siemens Immulite 2000/2500	
		ng/ml	2.12	1.59		2.65
		ng/dl	212	159		265
	nmol/l	3.20	2.40	4.00	Abbott Architect	
		ng/ml	2.08	1.56		2.60
		ng/dl	208	156		260
	nmol/l	4.28	3.21	5.35	Vitros ECi	
		ng/ml	2.79	2.09		3.49
ng/dl		279	209	349		
nmol/l	2.86	2.15	3.58	Diasorin Liaison		
	ng/ml	1.86	1.40		2.32	
	ng/dl	186	140		232	
nmol/l	3.32	2.49	4.15	Beckman Dxl800		
	ng/ml	2.16	1.62		2.70	
	ng/dl	216	162		270	
nmol/l	4.12	3.09	5.15	Roche Cobas E411		
	ng/ml	2.68	2.01		3.35	
	ng/dl	268	201		335	

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

Cat. No. IA2639 / IA2633 Lot No. 1869EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods	
			low	high		
Total T3	nmol/l	3.88	2.91	4.85	Roche Cobas 6000/8000	
	ng/ml	2.53	1.89	3.17		
	ng/dl	253	189	317		
	nmol/l	4.34	3.26	5.43	Siemens Atellica IM	
		ng/ml	2.83	2.12		3.53
		ng/dl	283	212		353
	nmol/l	2.48	1.86	3.10	Diasorin Liaison XL	
		ng/ml	1.61	1.21		2.02
		ng/dl	161	121		202
Total T4	nmol/l	135	101	169	Vitros ECI	
	µg/dl	10.5	7.88	13.1		
	ng/ml	105	78.8	131		
	nmol/l	155	116	194	BioMerieux Vidas	
		µg/dl	12.1	9.05		15.2
		ng/ml	121	90.5		152
	nmol/l	139	104	174	Beckman Access	
		µg/dl	10.8	8.11		13.5
		ng/ml	108	81.1		135
	nmol/l	136	88.4	184	Siemens Centaur XP/XPT/Classic	
		µg/dl	10.6	6.89		14.3
		ng/ml	106	68.9		143
	nmol/l	140	105	175	Siemens Immulite 2000/2500	
		µg/dl	10.9	8.19		13.6
		ng/ml	109	81.9		136
	nmol/l	132	99.0	165	Abbott Architect	
		µg/dl	10.3	7.72		12.9
		ng/ml	103	77.2		129
	nmol/l	107	80.3	134	Diasorin Liaison	
		µg/dl	8.35	6.26		10.4
		ng/ml	83.5	62.6		104
nmol/l	128	96.0	160	Roche Cobas E411		
	µg/dl	9.98	7.49		12.5	
	ng/ml	100	74.9		125	
nmol/l	125	93.8	156	Roche Cobas 6000/8000		
	µg/dl	9.75	7.32		12.2	
	ng/ml	97.5	73.2		122	
Valproic Acid	µmol/l	548	438	658	Siemens Centaur XP/XPT/Classic	
	µg/ml	79.1	63.2	95.0		
	µmol/l	503	402	604	Abbott Architect	
		µg/ml	72.6	58.0		87.2
	µmol/l	524	419	629	Roche Cobas 6000/8000	
		µg/ml	75.6	60.5		90.7
µmol/l	638	510	765	Gravimetric		
	µg/ml	92.0	73.6		110	
Vancomycin	µmol/l	7.42	5.94	8.90	Abbott Architect	
	µg/ml	11.0	8.83	13.2		

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

Cat. No. IA2639 / IA2633 Lot No. 1869EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Vancomycin	µmol/l	6.89	5.51	8.27	Roche Cobas 6000/8000
	µg/ml	10.2	8.19	12.2	
	µmol/l	7.10	5.68	8.52	Gravimetric
	µg/ml	10.5	8.44	12.7	
Vitamin B12	pmol/l	421	337	505	Beckman Access
	pg/ml	570	457	683	
	pmol/l	499	374	624	Siemens Centaur XP/XPT/Classic
	pg/ml	676	507	845	
	pmol/l	449	359	539	Siemens Immulite 2000
	pg/ml	608	486	730	
	pmol/l	443	354	532	Abbott Architect
	pg/ml	600	480	720	
	pmol/l	449	359	539	Vitros ECI
	pg/ml	608	486	730	
	pmol/l	395	316	474	Beckman DxI800
	pg/ml	535	428	642	
	pmol/l	489	391	587	Roche Cobas E411
	pg/ml	663	530	796	
	pmol/l	487	390	584	Roche Cobas 6000/8000
	pg/ml	660	528	792	
pmol/l	519	415	623	Siemens Atellica IM	
pg/ml	704	562	844		

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

<b>CAT. NO.</b> IA2640	<b>GTIN:</b> 05055273203868	<b>SIZE:</b> 12 x 5ml
<b>CAT. NO.</b> IA2633	<b>GTIN:</b> 05055273203837	<b>SIZE:</b> 4 x 5ml
<b>LOT NO.</b> 1870EC	<b>EXPIRY:</b> 2021-11-28	

### 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 5ml of distilled water at +15°C to +25°C. Close the bottle and allow to stand for 30 minutes before use. Ensure contents are completely dissolved by swirling gently. Avoid formation of foam. Do not shake.
- Refer to the Control section of the individual analyser application.
- Refrigerate any unused material. Prior to reuse, mix contents thoroughly.

### MATERIALS PROVIDED

Immunoassay Premium - Level 3: 12 x 5ml Tri-Level: 4 x 5ml

### 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).

Rev. 09 Jul '19 ne

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

Cat. No. IA2640 / IA2633 Lot No. 1870EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
17-OH-Progesterone	nmol/l	28.4	21.3	35.5	Immunotech RIA
	ng/ml	9.40	7.05	11.8	
25-OH Vitamin D	nmol/l	138	104	173	Siemens Centaur XP/XPT/Classic
	nmol/l	78.4	58.8	98.0	Roche Vitamin D Total
	nmol/l	88.3	66.2	110	Abbott Architect
	nmol/l	107	80.3	134	Vitros ECi
	nmol/l	82.8	62.1	104	BioMerieux Vidas
	nmol/l	85.6	64.2	107	Beckman Dxl 600/800
	nmol/l	102	76.5	128	Roche Vitamin D Total II
	nmol/l	109	81.8	136	Diasorin Liaison XL
	nmol/l	125	93.5	156	Siemens Atellica IM
ACTH	pmol/l	35.1	26.3	43.9	Siemens Immulite 2000/2500
	pg/ml	160	120	200	
	pmol/l	24.2	18.2	30.3	Roche Cobas E411
	pg/ml	110	82.7	137	
	pmol/l	27.3	20.5	34.1	Roche Cobas 6000/8000
	pg/ml	124	93.2	155	
	pmol/l	34.2	25.7	42.8	Siemens Immulite 1000
pg/ml	155	117	193		
Aldosterone	pmol/l	631	473	789	Diasorin Liaison XL
	pg/ml	228	171	285	
Alpha-fetoprotein	KIU/l = IU/ml	210	168	252	BioMerieux Vidas
	ng/ml	254	203	305	
	KIU/l = IU/ml	199	159	239	Vitros ECi
	ng/ml	207	166	248	
	KIU/l = IU/ml	223	176	270	Siemens Centaur XP/XPT/Classic
	ng/ml	270	213	327	
	KIU/l = IU/ml	187	150	224	Siemens Immulite 2000/2500
	ng/ml	226	182	270	
	KIU/l = IU/ml	183	146	220	Abbott Architect
	ng/ml	221	177	265	
	KIU/l = IU/ml	174	139	209	Beckman Dxl800
	ng/ml	211	168	254	
	KIU/l = IU/ml	210	168	252	Roche Cobas 6000/8000
	ng/ml	254	203	305	
	KIU/l = IU/ml	209	167	251	Roche Cobas E411
ng/ml	253	202	304		
KIU/l = IU/ml	210	168	252	Siemens Atellica IM	
ng/ml	254	203	305		



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

Cat. No. IA2640 / IA2633 Lot No. 1870EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Alpha-fetoprotein	KIU/l = IU/ml	201	161	241	Diasorin Liaison
	ng/ml	243	195	292	
	KIU/l = IU/ml	209	167	251	Diasorin Liaison XL
	ng/ml	253	202	304	
Amikacin	µmol/l	24.1	19.3	28.9	Gravimetric
	µg/ml	14.1	11.3	16.9	
Androstenedione	nmol/l	34.0	25.5	42.5	Siemens Immulite 2000
	ng/ml	9.76	7.32	12.2	
	nmol/l	24.8	18.6	31.0	Diasorin Liaison XL
	ng/ml	7.12	5.34	8.90	
Beta-2-microglobulin	µg/ml = mg/l	6.27	5.02	7.52	Siemens Immulite 2000/2500
	µg/ml = mg/l	7.17	5.74	8.60	Abbott Architect
	µg/ml = mg/l	6.94	5.55	8.33	Roche Cobas 6000/8000
	µg/ml = mg/l	5.99	4.79	7.19	Diasorin Liaison XL
C-Peptide	nmol/l	3.390	2.540	4.240	Siemens Immulite 2000/2500
	ng/ml	10.2	7.67	12.7	
	nmol/l	3.240	2.430	4.050	Roche Cobas 6000/8000
	ng/ml	9.78	7.34	12.2	
	nmol/l	2.950	2.210	3.690	Abbott Architect
	ng/ml	8.91	6.67	11.2	
	nmol/l	3.400	2.550	4.250	Diasorin Liaison
	ng/ml	10.3	7.70	12.8	
Carbamazepine	µmol/l	68.4	42.4	94.4	Siemens Centaur XP/XPT/Classic
	µg/ml	16.2	10.0	22.4	
	µmol/l	69.0	55.2	82.8	Abbott Architect
	µg/ml	16.3	13.0	19.6	
	µmol/l	69.2	55.4	83.0	Roche Cobas 6000/8000
	µg/ml	16.4	13.1	19.7	
	µmol/l	72.2	57.8	86.6	Gravimetric
	µg/ml	17.1	13.7	20.5	
Carcinoembryonic Antigen (CEA)	ng/ml = µg/l	62.3	49.8	74.8	BioMerieux Vidas
	ng/ml = µg/l	82.0	65.6	98.4	Siemens Immulite 1000
	ng/ml = µg/l	63.1	50.5	75.7	Vitros Eci
	ng/ml = µg/l	64.1	51.3	76.9	Beckman Access
	ng/ml = µg/l	64.1	44.2	84.0	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	84.3	67.4	101	Siemens Immulite 2000/2500
	ng/ml = µg/l	72.1	57.7	86.5	Abbott Architect
	ng/ml = µg/l	58.2	46.6	69.9	Diasorin Liaison
	ng/ml = µg/l	57.9	46.3	69.5	Beckman DxI800
	ng/ml = µg/l	50.5	40.4	60.6	Roche Cobas 6000/8000
	ng/ml = µg/l	51.0	40.8	61.2	Roche Cobas E411
	ng/ml = µg/l	61.1	48.9	73.3	Siemens Atellica IM
Cortisol	nmol/l	913	685	1141	Siemens Immulite 1000
	µg/dl	32.9	24.7	41.1	

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

Cat. No. IA2640 / IA2633 Lot No. 1870EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Cortisol	nmol/l	1069	802	1336	Roche Elecsys
	µg/dl	38.5	28.9	48.1	
	nmol/l	1082	747	1417	Siemens Centaur XP/XPT/Classic
	µg/dl	39.0	26.9	51.1	
	nmol/l	877	658	1096	Siemens Immulite 2000/2500
	µg/dl	31.6	23.7	39.5	
	nmol/l	869	652	1086	Vitros ECI
	µg/dl	31.3	23.5	39.1	
	nmol/l	818	614	1023	Abbott Architect
	µg/dl	29.4	22.1	36.7	
	nmol/l	922	692	1153	Beckman DxI800
	µg/dl	33.2	24.9	41.5	
	nmol/l	1105	829	1381	Roche Cobas 6000/8000
	µg/dl	39.8	29.8	49.8	
	nmol/l	1000	750	1250	Roche Cobas E411
	µg/dl	36.0	27.0	45.0	
	nmol/l	954	716	1193	Roche Cobas 4000/e411 Gen II
	µg/dl	34.3	25.8	42.8	
nmol/l	906	680	1133	Roche Cobas 6000/8000 Gen II	
µg/dl	32.6	24.5	40.7		
nmol/l	1171	878	1464	Siemens Atellica IM	
µg/dl	42.2	31.6	52.7		
nmol/l	969	727	1211	Diasorin Liaison	
µg/dl	34.9	26.2	43.6		
nmol/l	1131	848	1414	Diasorin Liaison XL	
µg/dl	40.7	30.5	50.9		
DHEA-S	µmol/l	17.6	14.1	21.1	Siemens Immulite 2000/2500
	µmol/l	26.2	21.0	31.4	Roche Elecsys
	µmol/l	19.2	15.4	23.0	Abbott Architect
	µmol/l	15.9	9.54	22.3	Siemens Centaur XP/XPT/Classic
	µmol/l	24.9	19.9	29.9	Roche Cobas E411
	µmol/l	25.0	20.0	30.0	Roche Cobas 6000/8000
	µmol/l	16.7	13.3	20.0	Siemens Atellica IM
	µmol/l	18.3	14.6	21.9	Diasorin Liaison XL
Digoxin	nmol/l	5.53	4.42	6.64	Siemens Immulite 2000/2500
	ng/ml	4.32	3.45	5.19	
	nmol/l	4.39	3.51	5.27	Abbott Architect
	ng/ml	3.43	2.74	4.12	
	nmol/l	4.88	3.90	5.86	Beckman DxI800
	ng/ml	3.81	3.05	4.57	
	nmol/l	4.98	3.98	5.98	Roche Cobas 6000/8000
	ng/ml	3.89	3.11	4.67	
Ethosuximide	nmol/l	5.12	4.10	6.14	Gravimetric
	ng/ml	4.00	3.20	4.80	
	µmol/l	493	395	592	Gravimetric
	µg/ml	70.0	56.0	83.9	

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

Cat. No. IA2640 / IA2633 Lot No. 1870EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Range					
Analyte	unit	Target	low	high	methods
Ferritin	ng/ml = µg/l	281	225	337	BioMerieux Vidas
	ng/ml = µg/l	350	280	420	Roche Elecsys
	ng/ml = µg/l	237	190	284	Beckman Access
	ng/ml = µg/l	212	170	254	Vitros ECI
	ng/ml = µg/l	323	252	394	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	293	234	352	Siemens Immulite 2000/2500
	ng/ml = µg/l	375	300	450	Abbott Architect
	ng/ml = µg/l	339	271	407	Roche Modular E170
	ng/ml = µg/l	237	190	284	Beckman DxI800
	ng/ml = µg/l	320	256	384	Siemens Atellica IM
	ng/ml = µg/l	346	277	415	Diasorin Liaison
	ng/ml = µg/l	341	273	409	Diasorin Liaison XL
Folate	nmol/l	23.5	17.9	29.1	Beckman Access
	ng/ml	10.4	7.89	12.9	
	nmol/l	17.4	13.2	21.6	Siemens Immulite 2000
	ng/ml	7.67	5.82	9.52	
	nmol/l	14.5	11.0	18.0	Vitros ECI
	ng/ml	6.39	4.85	7.93	
	nmol/l	20.2	15.4	25.0	Abbott Architect
	ng/ml	8.91	6.79	11.0	
	nmol/l	44.8	26.9	62.7	Siemens Centaur XP/XPT/Classic (enhanced kit)
	ng/ml	19.8	11.9	27.7	
	nmol/l	23.5	17.9	29.1	Beckman DxI800
	ng/ml	10.4	7.89	12.9	
	nmol/l	23.8	18.1	29.5	Roche Cobas 6000/8000 Folate III
ng/ml	10.5	7.98	13.0		
nmol/l	37.4	28.4	46.4	Siemens Atellica IM	
ng/ml	16.5	12.5	20.5		
Free T3	pmol/l	29.8	22.4	37.3	Roche Elecsys
	ng/dl	1.94	1.46	2.42	
	pg/ml	19.4	14.6	24.2	
	pmol/l	19.3	14.5	24.1	Beckman Access
	ng/dl	1.25	0.943	1.56	
	pg/ml	12.6	9.44	15.8	
	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	25.1	15.1	35.1	Siemens Centaur XP/XPT/Classic
	ng/dl	1.63	0.978	2.28	
	pg/ml	16.3	9.78	22.8	
	pmol/l	14.4	10.8	18.0	Siemens Immulite 2000/2500
	ng/dl	0.936	0.702	1.17	
	pg/ml	9.37	7.03	11.7	
pmol/l	23.5	17.6	29.4	Abbott Architect	
ng/dl	1.53	1.14	1.92		
pg/ml	15.3	11.5	19.1		

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

Cat. No. IA2640 / IA2633 Lot No. 1870EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Free T3	pmol/l	39.5	29.6	49.4	Diasorin Liaison
	ng/dl	2.57	1.92	3.22	
	pg/ml	25.7	19.3	32.1	
	pmol/l	18.6	14.0	23.3	Beckman Dxl800
	ng/dl	1.21	0.910	1.51	
	pg/ml	12.1	9.11	15.1	
	pmol/l	30.1	22.6	37.6	Roche Cobas E411
	ng/dl	1.96	1.47	2.45	
	pg/ml	19.6	14.7	24.5	
	pmol/l	30.5	22.9	38.1	Roche Cobas 6000/8000
	ng/dl	1.98	1.49	2.47	
	pg/ml	19.9	14.9	24.9	
	pmol/l	27.3	20.5	34.1	Siemens Atellica IM
	ng/dl	1.77	1.33	2.22	
	pg/ml	17.8	13.3	22.2	
pmol/l	40.2	30.2	50.3	Diasorin Liaison XL	
ng/dl	2.61	1.96	3.27		
pg/ml	26.2	19.7	32.7		
Free T4	pmol/l	77.1	57.8	96.4	Siemens Immulite 1000
	ng/dl	6.01	4.51	7.51	
	pg/ml	60.1	45.1	75.1	
	pmol/l	76.8	57.6	96.0	Roche Elecsys
	ng/dl	5.99	4.49	7.49	
	pg/ml	59.9	44.9	74.9	
	pmol/l	54.3	40.7	67.9	Beckman Access
	ng/dl	4.24	3.17	5.31	
	pg/ml	42.4	31.7	53.1	
	pmol/l	89.8	67.4	112	Vitros ECI
	ng/dl	7.00	5.26	8.74	
	pg/ml	70.0	52.6	87.4	
	pmol/l	54.6	41.0	68.3	Siemens Centaur XP/XPT/Classic
	ng/dl	4.26	3.20	5.32	
	pg/ml	42.6	32.0	53.2	
	pmol/l	76.8	57.6	96.0	Siemens Immulite 2000/2500
	ng/dl	5.99	4.49	7.49	
	pg/ml	59.9	44.9	74.9	
	pmol/l	49.8	37.4	62.3	Abbott Architect
	ng/dl	3.88	2.92	4.84	
	pg/ml	38.8	29.2	48.4	
pmol/l	101	75.8	126	Diasorin Liaison	
ng/dl	7.88	5.91	9.85		
pg/ml	78.8	59.1	98.5		
pmol/l	59.4	44.6	74.3	Beckman Dxl800	
ng/dl	4.63	3.48	5.78		
pg/ml	46.3	34.8	57.8		

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

Cat. No. IA2640 / IA2633 Lot No. 1870EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Free T4	pmol/l	76.8	57.6	96.0	Roche Cobas 6000/8000
	ng/dl	5.99	4.49	7.49	
	pg/ml	59.9	44.9	74.9	
	pmol/l	77.2	57.9	96.5	Roche Cobas E411
	ng/dl	6.02	4.52	7.52	
	pg/ml	60.2	45.2	75.2	
	pmol/l	83.9	62.9	105	Biomerieux Vidas FT4N Kit
	ng/dl	6.54	4.91	8.17	
	pg/ml	65.4	49.1	81.7	
	pmol/l	59.1	44.3	73.9	Siemens Centaur CP
	ng/dl	4.61	3.46	5.76	
	pg/ml	46.1	34.6	57.6	
FSH	pmol/l	60.4	45.3	75.5	Siemens Atellica IM
	ng/dl	4.71	3.53	5.89	
	pg/ml	47.1	35.3	58.9	
	pmol/l	124	93.0	155	Diasorin Liaison XL
	ng/dl	9.67	7.25	12.1	
	pg/ml	96.7	72.5	121	
	mU/ml	61.3	49.0	73.6	Siemens Immulite 1000
	mU/ml	78.4	62.7	94.1	BioMerieux Vidas
	mU/ml	61.9	49.5	74.3	Beckman Access
	mU/ml	56.8	45.4	68.2	Roche/BM Elecsys
	mU/ml	43.5	34.8	52.2	Vitros ECi
	mU/ml	80.0	62.4	97.6	Siemens Centaur XP/XPT/Classic
mU/ml	59.5	47.6	71.4	Siemens Immulite 2000/2500	
mU/ml	51.4	41.1	61.7	Abbott Architect	
mU/ml	70.2	56.2	84.2	Diasorin Liaison	
mU/ml	62.5	50.0	75.0	Beckman Dxl800	
mU/ml	58.9	47.1	70.7	Roche Cobas E411	
mU/ml	55.6	44.5	66.7	Roche Cobas 6000/8000	
mU/ml	82.6	66.1	99.1	Siemens Atellica IM	
mU/ml	84.9	67.9	102	Diasorin Liaison XL	
Gentamicin	µmol/l	11.7	9.38	14.1	Gravimetric
	µg/ml	5.60	4.48	6.74	
Growth Hormone (GH)	µU/ml	45.5	36.4	54.6	Siemens Immulite 1000
	ng/ml	15.2	12.1	18.3	
	µU/ml	49.3	39.4	59.2	Siemens Immulite 2000/2500
	ng/ml	16.4	13.1	19.7	
	µU/ml	41.2	33.0	49.4	Beckman Dxl800
	ng/ml	13.7	11.0	16.4	
	µU/ml	45.9	36.7	55.1	Diasorin Liaison
	ng/ml	15.3	12.2	18.4	
	µU/ml	45.9	36.7	55.1	Roche Cobas 6000/8000
	ng/ml	15.3	12.2	18.4	
	µU/ml	44.6	35.7	53.5	Diasorin Liaison XL
	ng/ml	14.9	11.9	17.8	

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

Cat. No. IA2640 / IA2633 Lot No. 1870EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Immunoglobulin E	KIU/l = IU/ml	509	407	611	Siemens Immulite 1000
	KIU/l = IU/ml	482	386	578	Pharmacia Unicap
	KIU/l = IU/ml	505	303	707	Siemens Centaur XP/XPT/Classic
	KIU/l = IU/ml	547	438	656	Siemens Immulite 2000/2500
	KIU/l = IU/ml	539	431	647	Abbott Architect
	KIU/l = IU/ml	541	433	649	Roche Cobas E411
	KIU/l = IU/ml	524	419	629	Roche Cobas 6000/8000
	KIU/l = IU/ml	522	417	626	Siemens Atellica IM
Insulin	mU/l	28.7	21.5	35.9	Siemens Centaur XP/XPT/Classic
	µU/ml	28.7	21.5	35.9	
	mU/l	25.3	19.0	31.6	Abbott Architect
	µU/ml	25.3	19.0	31.6	
	mU/l	33.1	24.8	41.4	Roche Cobas E411
	µU/ml	33.1	24.8	41.4	
	mU/l	32.3	24.2	40.4	Roche Cobas 6000/8000
	µU/ml	32.3	24.2	40.4	
	mU/l	25.5	19.1	31.9	Beckman Dxl 600/800
	µU/ml	25.5	19.1	31.9	
	mU/l	28.9	21.7	36.1	Siemens Atellica IM
	µU/ml	28.9	21.7	36.1	
Luteinising Hormone (LH)	mU/ml	35.7	28.6	42.8	Beckman Access
	mU/ml	50.9	40.7	61.1	BioMerieux Vidas
	mU/ml	76.3	61.0	91.6	Siemens Immulite 1000
	mU/ml	58.8	47.0	70.6	Vitros ECI
	mU/ml	50.1	38.6	61.6	Siemens Centaur XP/XPT/Classic
	mU/ml	69.2	55.4	83.0	Siemens Immulite 2000
	mU/ml	42.1	33.7	50.5	Abbott Architect
	mU/ml	65.2	52.2	78.2	Diasorin Liaison
	mU/ml	35.0	28.0	42.0	Beckman Dxl800
	mU/ml	53.8	43.0	64.6	Roche Cobas E411
	mU/ml	55.4	44.3	66.5	Roche Cobas 6000/8000
	mU/ml	50.9	40.7	61.1	Siemens Atellica IM
	mU/ml	70.5	56.4	84.6	Diasorin Liaison XL
	Oestradiol	pmol/l	3181	2545	3817
pg/ml		865	692	1038	
pmol/l		2657	2126	3188	Vitros ECI
pg/ml		723	578	868	
pmol/l		2646	2117	3175	Beckman Access
pg/ml		720	576	864	
pmol/l		2549	2039	3059	Siemens Immulite 2000/2500
pg/ml		693	555	831	
	pmol/l	1477	1182	1772	Abbott Architect
	pg/ml	402	322	482	

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

Cat. No. IA2640 / IA2633 Lot No. 1870EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Oestradiol	pmol/l	2399	1919	2879	Beckman DxI800
	pg/ml	653	522	784	
	pmol/l	1749	1399	2099	Roche Cobas 6000/8000 (Estradiol II)
	pg/ml	476	381	571	
	pmol/l	1738	1390	2086	Roche Cobas 4000/E411 (Estradiol II)
	pg/ml	473	378	568	
	pmol/l	2835	1758	3912	Siemens Centaur XP/XPT/Classic Enhanced (eE2)
	pg/ml	771	478	1064	
	pmol/l	1744	1395	2093	Roche Cobas 6000/8000 (Estradiol III)
	pg/ml	474	379	569	
	pmol/l	1755	1404	2106	Roche Elecsys (Estradiol III)
	pg/ml	477	382	572	
	pmol/l	1727	1382	2072	Roche Cobas 4000/E411 (Estradiol III)
	pg/ml	470	376	564	
Paracetamol	pmol/l	2941	2353	3529	Siemens Atellica IM
	pg/ml	800	640	960	
	pmol/l	1546	1237	1855	Diasorin Liaison
	pg/ml	421	336	505	
Phenobarbital	pmol/l	1431	1145	1717	Diasorin Liaison XL
	pg/ml	389	311	467	
	mmol/l	0.484	0.387	0.581	Roche Cobas 6000/8000
	mg/l	73.2	58.6	87.8	
Phenytoin	mmol/l	0.529	0.420	0.630	Gravimetric
	mg/l	80.0	63.5	95.3	
	µmol/l	121	96.8	145	Abbott Architect
	µg/ml	28.1	22.5	33.7	
Primidone	µmol/l	120	96.0	144	Siemens Immulite 2000/2500
	µg/ml	27.8	22.3	33.3	
	µmol/l	122	97.6	146	Beckman AU400/600/640/2700/5400
	µg/ml	28.3	22.6	34.0	
	µmol/l	121	96.6	145	Gravimetric
	µg/ml	28.0	22.4	33.6	
Progesterone	µmol/l	92.8	74.2	111	Abbott Architect
	µg/ml	23.4	18.7	28.1	
	µmol/l	88.3	70.6	106	Beckman DxC
	µg/ml	22.3	17.8	26.8	
	µmol/l	93.1	74.5	112	Roche Cobas 6000/8000
	µg/ml	23.5	18.8	28.2	
Progesterone	µmol/l	99.8	79.8	120	Gravimetric
	µg/ml	25.2	20.1	30.3	
Progesterone	nmol/l	32.7	26.2	39.2	Gravimetric
	ng/ml	7.14	5.72	8.56	
Progesterone	nmol/l	97.9	78.3	117	Beckman Access Prog Cal 33555
	ng/ml	30.6	24.5	36.7	
	nmol/l	77.2	61.8	92.6	Siemens Immulite 1000
	ng/ml	24.2	19.3	29.1	

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

Cat. No. IA2640 / IA2633 Lot No. 1870EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Progesterone	nmol/l	160	128	192	BioMerieux Vidas
	ng/ml	50.1	40.1	60.1	
	nmol/l	109	87.2	131	Roche Elecsys (Prog. II)
	ng/ml	34.1	27.3	40.9	
	nmol/l	102	81.6	122	Vitros ECI
	ng/ml	31.9	25.5	38.3	
	nmol/l	71.9	51.0	92.8	Siemens Centaur XP/XPT/Classic
	ng/ml	22.5	16.0	29.0	
	nmol/l	61.7	49.4	74.0	Siemens Immulite 2000/2500
	ng/ml	19.3	15.5	23.1	
	nmol/l	90.3	72.2	108	Abbott Architect
	ng/ml	28.3	22.6	34.0	
	nmol/l	107	85.6	128	Beckman Dxl Prog Cal 33555
	ng/ml	33.5	26.8	40.2	
	nmol/l	83.6	66.9	100	Diasorin Liaison
	ng/ml	26.2	20.9	31.5	
	nmol/l	102	81.6	122	Roche Cobas 4000/e411 (Prog. II)
	ng/ml	31.9	25.5	38.3	
	nmol/l	103	82.4	124	Roche Cobas 6000/8000 (Prog. II)
	ng/ml	32.2	25.8	38.6	
nmol/l	85.9	68.7	103	Beckman Dxl Prog DE Cal A80773	
ng/ml	26.9	21.5	32.3		
nmol/l	100	80.0	120	Roche Cobas 6000/8000 (Prog. III)	
ng/ml	31.3	25.0	37.6		
nmol/l	102	81.6	122	Roche Cobas 4000/e411 (Prog. III)	
ng/ml	31.9	25.5	38.3		
nmol/l	80.6	64.5	96.7	Siemens Atellica IM	
ng/ml	25.2	20.2	30.3		
nmol/l	89.1	71.3	107	Diasorin Liaison XL	
ng/ml	27.9	22.3	33.5		
Prolactin	µU/ml	870	696	1044	Beckman Access
	µU/ml	1399	1119	1679	BioMerieux Vidas
	µU/ml	1032	826	1238	Siemens Immulite 1000
	µU/ml	919	735	1103	Vitros ECI
	µU/ml	926	695	1157	Siemens Centaur XP/XPT/Classic
	µU/ml	936	749	1123	Siemens Immulite 2000/2500
	µU/ml	1083	866	1300	Abbott Architect
	µU/ml	1118	894	1342	Diasorin Liaison
	µU/ml	874	699	1049	Beckman Dxl800
	µU/ml	1033	826	1240	Roche Elecsys/E170/Cobas 6000/8000 PRLII
	µU/ml	1074	859	1289	Roche Cobas E411
	µU/ml	1022	818	1226	Roche Cobas 6000/8000
	µU/ml	1054	843	1265	Abbott Architect restandardised
	µU/ml	923	738	1107	Siemens Atellica IM
µU/ml	1101	881	1321	Diasorin Liaison XL	



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

Cat. No. IA2640 / IA2633 Lot No. 1870EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
PSA Free	ng/ml = µg/l	19.5	14.6	24.4	Siemens Immulite 2000/2500
	ng/ml = µg/l	25.3	19.0	31.6	Abbott Architect
	ng/ml = µg/l	18.6	14.0	23.3	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	12.2	9.15	15.3	Diasorin Liaison
	ng/ml = µg/l	25.2	18.9	31.5	Beckman DXI standardised to Hybritech
	ng/ml = µg/l	16.9	12.7	21.1	Roche Cobas E411
	ng/ml = µg/l	16.6	12.5	20.8	Roche Cobas 6000/8000
	ng/ml = µg/l	20.5	15.4	25.6	Siemens Atellica IM
PSA Total	ng/ml = µg/l	14.5	10.9	18.1	Siemens Immulite 1000 1st generation
	ng/ml = µg/l	29.0	21.8	36.3	Roche Elecsys
	ng/ml = µg/l	34.8	26.1	43.5	Beckman Access standardised to Hybritech
	ng/ml = µg/l	26.6	20.0	33.3	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	29.3	22.0	36.6	bioMerieux VIDAS TPSA
	ng/ml = µg/l	14.8	11.1	18.5	Siemens Immulite 2000/2500 1st generation
	ng/ml = µg/l	22.0	16.5	27.5	Abbott Architect
	ng/ml = µg/l	29.7	22.3	37.1	Vitros ECi
	ng/ml = µg/l	18.6	14.0	23.3	Diasorin Liaison
	ng/ml = µg/l	33.4	25.1	41.8	Beckman Dxl standardised to Hybritech
	ng/ml = µg/l	26.6	20.0	33.3	Beckman Dxl800 standardised to WHO IRP96/670
	ng/ml = µg/l	32.4	24.3	40.5	Roche Cobas E411
	ng/ml = µg/l	30.8	23.1	38.5	Roche Cobas 6000/8000
	ng/ml = µg/l	29.5	22.1	36.9	Ortho Vitros 3600/5600/ECi PSA II
	Salicylate	mmol/l	2.88	2.30	3.46
mg/dl		39.7	31.7	47.7	
SHBG	nmol/l	35.8	28.6	43.0	Siemens Immulite 2000/2500
	nmol/l	32.0	25.6	38.4	Abbott Architect
	nmol/l	37.1	29.7	44.5	Roche Cobas E411
	nmol/l	35.9	28.7	43.1	Roche Cobas 6000/8000
	nmol/l	32.7	26.2	39.2	Beckman Dxl800
	nmol/l	34.5	27.6	41.3	Siemens Atellica IM
T Uptake	%U	41.4	33.9	48.9	Siemens Immulite 2000
Testosterone	nmol/l	46.8	37.4	56.2	Vitros ECi
	ng/ml	13.5	10.8	16.2	
	ng/dl	1348	1077	1619	
	nmol/l	25.2	18.4	32.0	Siemens Centaur XP/XPT/Classic
	ng/ml	7.26	5.30	9.22	
	ng/dl	726	530	922	
	nmol/l	37.2	29.8	44.6	Siemens Immulite 2000/2500
	ng/ml	10.7	8.58	12.8	
	ng/dl	1071	858	1284	
	nmol/l	30.2	24.2	36.2	Abbott Architect
ng/ml	8.70	6.97	10.4		
ng/dl	870	697	1043		

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

Cat. No. IA2640 / IA2633 Lot No. 1870EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Testosterone	nmol/l	28.7	23.0	34.4	Beckman Access
	ng/ml	8.27	6.62	9.92	
	ng/dl	827	662	992	
	nmol/l	25.1	20.1	30.1	Beckman Dxl800
	ng/ml	7.23	5.79	8.67	
	ng/dl	723	579	867	
	nmol/l	32.3	25.8	38.8	Roche Elecsys Test II
	ng/ml	9.30	7.43	11.2	
	ng/dl	930	743	1117	
	nmol/l	31.5	25.2	37.8	Roche Cobas 4000/e411 Test II
	ng/ml	9.07	7.26	10.9	
	ng/dl	907	726	1088	
	nmol/l	31.5	25.2	37.8	Roche Cobas 6000 Test 2
	ng/ml	9.07	7.26	10.9	
	ng/dl	907	726	1088	
	nmol/l	30.7	24.6	36.8	Abbott Architect 2nd Generation
	ng/ml	8.84	7.08	10.6	
	ng/dl	884	708	1060	
	nmol/l	28.1	22.5	33.7	BioMerieux Vidas Testosterone II
	ng/ml	8.09	6.48	9.70	
ng/dl	809	648	970		
nmol/l	25.9	18.9	32.9	Siemens Centaur TST II	
ng/ml	7.46	5.45	9.47		
ng/dl	746	545	947		
nmol/l	25.1	20.1	30.1	Siemens Atellica IM	
ng/ml	7.23	5.79	8.67		
ng/dl	723	579	867		
nmol/l	16.3	13.0	19.6	Diasorin Liaison	
ng/ml	4.69	3.74	5.64		
ng/dl	469	374	564		
nmol/l	13.3	10.6	16.0	Diasorin Liaison XL	
ng/ml	3.83	3.05	4.61		
ng/dl	383	305	461		
Theophylline	µmol/l	158	126	190	Beckman DxC
	µg/ml	28.5	22.7	34.3	
	µmol/l	153	122	184	Roche Cobas 6000/8000
	µg/ml	27.6	22.0	33.2	
	µmol/l	166	133	200	
µg/ml	30.0	24.0	36.0	Gravimetric	
Thyroglobulin	ng/ml	36.5	27.4	45.6	Siemens Immulite 2000
	ng/ml	59.6	44.7	74.5	Beckman Access
	ng/ml	64.0	48.0	80.0	Roche Cobas E411
	ng/ml	62.6	47.0	78.3	Roche Cobas 6000/8000
	ng/ml	60.9	45.7	76.1	Roche Cobas 6000 TGII
	ng/ml	30.8	23.1	38.5	Diasorin Liaison XL

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

Cat. No. IA2640 / IA2633 Lot No. 1870EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Thyroid Stimulating Hormone	µU/ml = mIU/l	21.9	17.5	26.3	bioMerieux VIDAS TSH
	µU/ml = mIU/l	21.5	17.2	25.8	Siemens Immulite 1000
	µU/ml = mIU/l	22.6	18.1	27.1	Roche Elecsys
	µU/ml = mIU/l	21.4	17.1	25.7	Beckman Access hyperTSH 3rd Generation
	µU/ml = mIU/l	31.4	25.1	37.7	Vitros ECi
	µU/ml = mIU/l	24.5	16.7	32.3	Siemens Centaur XP/XPT/Classic
	µU/ml = mIU/l	22.7	18.2	27.2	Siemens Immulite 2000/2500
	µU/ml = mIU/l	19.4	15.5	23.3	Abbott Architect
	µU/ml = mIU/l	27.3	21.8	32.8	Diasorin Liaison
	µU/ml = mIU/l	22.0	17.6	26.4	Beckman Access Fast TSH
	µU/ml = mIU/l	22.6	18.1	27.1	Roche Cobas E411
	µU/ml = mIU/l	22.8	18.2	27.4	Roche Cobas 6000/8000
	µU/ml = mIU/l	21.0	16.8	25.2	Beckman Dxl800 Hyper TSH
	µU/ml = mIU/l	24.6	16.7	32.5	Siemens Centaur XP/XPT/Classic TSH3-Ultra
	µU/ml = mIU/l	20.7	16.6	24.8	Beckman Dxl 600/800 Access (3rd IS)
µU/ml = mIU/l	22.9	18.3	27.5	Siemens Atellica IM	
µU/ml = mIU/l	29.2	23.4	35.0	Diasorin Liaison XL	
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	541	433	649	BioMerieux Vidas
	IU/ml	0.541	0.433	0.649	
	mU/ml=IU/l	619	495	743	Siemens Immulite 1000
	IU/ml	0.619	0.495	0.743	
	mU/ml=IU/l	385	308	462	Roche Cobas Core EIA
	IU/ml	0.385	0.308	0.462	
	mU/ml=IU/l	335	268	402	Beckman Access
	IU/ml	0.335	0.268	0.402	
	mU/ml=IU/l	532	426	638	Vitros ECi
	IU/ml	0.532	0.426	0.638	
	mU/ml=IU/l	313	188	438	Siemens Centaur XP/XPT/Classic
	IU/ml	0.313	0.188	0.438	
	mU/ml=IU/l	611	489	733	Siemens Immulite 2000
	IU/ml	0.611	0.489	0.733	
	mU/ml=IU/l	328	262	394	Abbott Architect
	IU/ml	0.328	0.262	0.394	
	mU/ml=IU/l	557	446	668	Siemens Dimension
	IU/ml	0.557	0.446	0.668	
	mU/ml=IU/l	347	278	416	Beckman Dxl800
	IU/ml	0.347	0.278	0.416	
mU/ml=IU/l	299	239	359	Roche STAT (Intact)	
IU/ml	0.299	0.239	0.359		
mU/ml=IU/l	388	310	466	Roche hCG+Beta	
IU/ml	0.388	0.310	0.466		
mU/ml=IU/l	330	264	396	Radiometer AQT90 Flex	
IU/ml	0.330	0.264	0.396		
mU/ml=IU/l	340	272	408	Beckman Access Total BhCG (5th IS)	
IU/ml	0.340	0.272	0.408		

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

Cat. No. IA2640 / IA2633 Lot No. 1870EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Total Beta hCG	mU/ml=IU/l	349	279	419	Beckman Dxl Total BhCG (5th IS)
	IU/ml	0.349	0.279	0.419	
	mU/ml=IU/l	317	254	380	Siemens Atellica IM
	IU/ml	0.320	0.250	0.380	
	mU/ml=IU/l	289	231	347	Diasorin Liaison
	IU/ml	0.290	0.230	0.350	
mU/ml=IU/l	333	266	400	Diasorin Liaison XL	
IU/ml	0.330	0.270	0.400		
Total T3	nmol/l	5.94	4.46	7.43	BioMerieux Vidas
	ng/ml	3.87	2.90	4.84	
	ng/dl	387	290	484	
	nmol/l	5.44	4.08	6.80	Beckman Access
	ng/ml	3.54	2.66	4.42	
	ng/dl	354	266	442	
	nmol/l	7.52	5.64	9.40	Siemens Centaur XP/XPT/Classic
	ng/ml	4.90	3.67	6.13	
	ng/dl	490	367	613	
	nmol/l	6.46	4.85	8.08	Siemens Immulite 2000/2500
	ng/ml	4.21	3.16	5.26	
	ng/dl	421	316	526	
	nmol/l	5.22	3.92	6.53	Abbott Architect
	ng/ml	3.40	2.55	4.25	
	ng/dl	340	255	425	
	nmol/l	7.84	5.88	9.80	Vitros ECi
	ng/ml	5.10	3.83	6.37	
	ng/dl	510	383	637	
	nmol/l	5.75	4.31	7.19	Diasorin Liaison
	ng/ml	3.74	2.81	4.67	
	ng/dl	374	281	467	
	nmol/l	6.68	5.01	8.35	Roche Cobas E411
	ng/ml	4.35	3.26	5.44	
	ng/dl	435	326	544	
nmol/l	6.54	4.91	8.18	Roche Cobas 6000/8000	
ng/ml	4.26	3.20	5.32		
ng/dl	426	320	532		
nmol/l	4.69	3.52	5.86	Diasorin Liaison XL	
ng/ml	3.05	2.29	3.81		
ng/dl	305	229	381		
Total T4	nmol/l	209	157	261	Vitros ECi
	µg/dl	16.3	12.2	20.4	
	ng/ml	163	122	204	
	nmol/l	238	179	298	BioMerieux Vidas
	µg/dl	18.6	14.0	23.2	
	ng/ml	186	140	232	
	nmol/l	204	153	255	Siemens Immulite 1000
	µg/dl	15.9	11.9	19.9	
	ng/ml	159	119	199	

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

Cat. No. IA2640 / IA2633 Lot No. 1870EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Analyte	unit	Target	Range		methods
			low	high	
Total T4	nmol/l	210	147	273	Siemens Centaur XP/XPT/Classic
	µg/dl	16.4	11.5	21.3	
	ng/ml	164	115	213	
	nmol/l	198	149	248	Siemens Immulite 2000/2500
	µg/dl	15.4	11.6	19.2	
	ng/ml	154	116	192	
	nmol/l	194	146	243	Abbott Architect
	µg/dl	15.1	11.4	18.8	
	ng/ml	151	114	188	
	nmol/l	176	132	220	Diasorin Liaison
	µg/dl	13.7	10.3	17.1	
	ng/ml	137	103	171	
	nmol/l	218	164	273	Beckman Dxl800
	µg/dl	17.0	12.8	21.2	
	ng/ml	170	128	212	
	nmol/l	184	138	230	Roche Cobas E411
	µg/dl	14.4	10.8	18.0	
	ng/ml	144	108	180	
nmol/l	174	131	218	Roche Cobas 6000/8000	
µg/dl	13.6	10.2	17.0		
ng/ml	136	102	170		
nmol/l	175	131	219	Diasorin Liaison XL	
µg/dl	13.7	10.2	17.1		
ng/ml	137	102	171		
Valproic Acid	µmol/l	960	768	1152	Siemens Immulite 2000/2500
	µg/ml	139	111	167	
	µmol/l	955	764	1146	Siemens Centaur XP/XPT/Classic
	µg/ml	138	110	166	
	µmol/l	893	714	1072	Abbott Architect
	µg/ml	129	103	155	
	µmol/l	952	762	1142	Roche Cobas 6000/8000
	µg/ml	137	110	164	
	µmol/l	1116	893	1339	Gravimetric
	µg/ml	161	129	193	
µmol/l	915	732	1098	Siemens Atellica IM	
µg/ml	132	106	158		
Vancomycin	µmol/l	10.8	8.64	13.0	Abbott Architect
	µg/ml	16.0	12.8	19.2	
	µmol/l	9.54	7.63	11.4	Roche Cobas 6000/8000
	µg/ml	14.2	11.3	17.1	
	µmol/l	10.2	8.16	12.2	Beckman DxC
	µg/ml	15.2	12.1	18.3	
	µmol/l	10.8	8.62	12.9	Gravimetric
	µg/ml	16.0	12.8	19.2	

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

Cat. No. IA2640 / IA2633 Lot No. 1870EC Size: 12 x 5ml / 4 x 5ml Expiry: 2021-11-28

Range					
Analyte	unit	Target	low	high	methods
Vitamin B12	pmol/l	739	591	887	Beckman Access
	pg/ml	1001	801	1201	
	pmol/l	842	632	1052	Siemens Centaur XP/XPT/Classic
	pg/ml	1141	856	1426	
	pmol/l	642	514	770	Siemens Immulite 2000
	pg/ml	870	696	1044	
	pmol/l	768	614	922	Abbott Architect
	pg/ml	1041	832	1250	
	pmol/l	654	523	785	Vitros ECI
	pg/ml	886	709	1063	
	pmol/l	739	591	887	Beckman DxI800
	pg/ml	1001	801	1201	
	pmol/l	905	724	1086	Siemens Atellica IM
	pg/ml	1226	981	1472	