

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

CAT. NO. IA3109	GTIN: 05055273207255	SIZE: 12 x 5 ml
CAT. NO. IA3112	GTIN: 05055273207286	SIZE: 4 x 5 ml
LOT NO. I937EC	EXPIRY: 2022-12-28	

INTENDED USE

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

This device is for prescription use only.

SAFETY PRECAUTIONS AND WARNINGS

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

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

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

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

Health and Safety Data Sheets are available on request.

STORAGE AND STABILITY

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

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

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

PREPARATION

Immunoassay Premium Plus is supplied lyophilised.

- 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 Plus - Level 1: 12 x 5 ml Tri-Level: 4 x 5 ml

MATERIAL REQUIRED BUT NOT PROVIDED

Volumetric pipette

VALUE ASSIGNMENT

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

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



Randox Teoranta, Meenmore,
Dungloe, Donegal,
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IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

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

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

Analyte	unit	Target	Range		methods
			low	high	
Alphafoetoprotein	KIU/l = IU/ml	8.76	7.01	10.5	Beckman Dxl800
	ng/ml	10.6	8.48	12.7	
	KIU/l = IU/ml	9.42	7.54	11.3	Roche Elecsys
	ng/ml	11.4	9.12	13.7	
	KIU/l = IU/ml	10.2	8.16	12.2	Diasorin Liaison
	ng/ml	12.3	9.87	14.7	
	KIU/l = IU/ml	8.83	7.06	10.6	Beckman Access
	ng/ml	10.7	8.54	12.9	
	KIU/l = IU/ml	9.10	7.28	10.9	Tosoh Series
	ng/ml	11.0	8.81	13.2	
	KIU/l = IU/ml	9.38	7.50	11.3	Vitros ECi
	ng/ml	9.76	7.81	11.7	
	KIU/l = IU/ml	9.53	7.62	11.4	Roche Cobas 6000/8000
	ng/ml	11.5	9.22	13.8	
KIU/l = IU/ml	18.0	14.4	21.6	CIS IRMA	
ng/ml	21.8	17.4	26.2		
KIU/l = IU/ml	9.43	7.54	11.3	Roche Cobas E411	
ng/ml	11.4	9.12	13.7		
KIU/l = IU/ml	8.80	7.04	10.6	Fujirebio Lumipulse G Series	
ng/ml	10.6	8.52	12.7		
KIU/l = IU/ml	9.59	7.58	11.6	Siemens Centaur CP	
ng/ml	11.6	9.16	14.0		
KIU/l = IU/ml	10.5	8.40	12.6	Diasorin Liaison XL	
ng/ml	12.7	10.2	15.2		
Amikacin	µmol/l	5.96	4.77	7.15	Roche Cobas 6000/8000
	µg/ml	3.49	2.79	4.19	
	µmol/l	6.40	5.12	7.68	Gravimetric
	µg/ml	3.75	3.00	4.50	
Androstenedione	nmol/l	5.17	3.88	6.46	Siemens Immulite 2000
	ng/ml	1.48	1.11	1.85	
	nmol/l	5.19	3.89	6.49	LC/MS
	ng/ml	1.49	1.12	1.86	
	nmol/l	5.24	3.93	6.55	Diasorin Liaison XL
	ng/ml	1.50	1.13	1.87	
Beta-2-microglobulin	µg/ml = mg/l	0.881	0.705	1.06	Abbott Architect
	µg/ml = mg/l	1.00	0.800	1.20	BioMerieux Vidas
	µg/ml = mg/l	0.819	0.655	0.983	Behring Nephelometer
	µg/ml = mg/l	0.900	0.720	1.08	Siemens Immulite 2000/2500
	µg/ml = mg/l	1.02	0.816	1.22	Siemens Immulite 1000
	µg/ml = mg/l	1.03	0.824	1.24	Tosoh Series
	µg/ml = mg/l	1.01	0.808	1.21	Roche Cobas 6000/8000
	µg/ml = mg/l	0.743	0.594	0.892	Fujirebio Lumipulse G Series
	µg/ml = mg/l	0.742	0.594	0.890	Diasorin Liaison XL
C-Peptide	nmol/l	0.533	0.400	0.666	Siemens Immulite 2000/2500
	ng/ml	1.61	1.21	2.01	
	nmol/l	0.759	0.569	0.949	Roche Elecsys
	ng/ml	2.29	1.72	2.86	

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Analyte	unit	Target	Range		methods
			low	high	
C-Peptide	nmol/l	0.726	0.545	0.908	Roche Cobas 6000/8000
	ng/ml	2.19	1.65	2.73	
	nmol/l	0.492	0.369	0.615	Siemens Immulite 1000
	ng/ml	1.49	1.11	1.87	
	nmol/l	0.729	0.547	0.911	Diasorin Liaison
	ng/ml	2.20	1.65	2.75	
	nmol/l	0.716	0.537	0.895	Roche Cobas E411
	ng/ml	2.16	1.62	2.70	
	nmol/l	0.611	0.458	0.764	Abbott Architect
	ng/ml	1.84	1.38	2.30	
	nmol/l	0.496	0.347	0.645	Siemens Centaur XP/XPT/Classic
	ng/ml	1.50	1.05	1.95	
	nmol/l	0.674	0.506	0.843	Tosoh Series
	ng/ml	2.03	1.53	2.53	
CA 15-3	nmol/l	0.775	0.581	0.969	Diasorin Liaison XL
	ng/ml	2.34	1.75	2.93	
	nmol/l	0.474	0.356	0.593	Siemens Atellica IM
	ng/ml	1.43	1.07	1.79	
	U/ml	17.6	14.1	21.1	Abbott Architect
	U/ml	16.3	13.0	19.6	BioMerieux Vidas
	U/ml	16.8	11.1	22.5	Siemens Centaur XP/XPT/Classic
	U/ml	16.0	12.8	19.2	Siemens Immulite 2000/2500
	U/ml	18.6	14.9	22.3	Siemens Immulite 1000
	U/ml	7.30	5.84	8.76	Beckman Dxl800
	U/ml	16.7	13.4	20.0	Roche Elecsys
	U/ml	17.1	13.7	20.5	Diasorin Liaison
	U/ml	7.43	5.94	8.92	Beckman Access
	U/ml	17.9	14.3	21.5	Tosoh Series
	U/ml	15.5	12.4	18.6	Vitros ECi
	U/ml	16.8	13.4	20.2	Roche Cobas 6000/8000
U/ml	16.8	13.4	20.2	Roche Cobas E411	
U/ml	20.2	16.2	24.2	Fujirebio Lumipulse G Series	
U/ml	17.4	11.5	23.3	Siemens Centaur CP	
U/ml	15.7	12.6	18.8	Diasorin Liaison XL	
CA 19-9	U/ml	7.79	6.23	9.35	BioMerieux Vidas
	U/ml	10.9	7.19	14.6	Siemens Centaur XP/XPT/Classic
	U/ml	40.2	32.2	48.2	Siemens Immulite 2000/2500
	U/ml	44.9	35.9	53.9	Beckman Dxl800
	U/ml	15.6	12.5	18.7	Roche Elecsys
	U/ml	53.1	42.5	63.7	Beckman Access
	U/ml	12.4	9.92	14.9	Tosoh Series
	U/ml	18.9	15.1	22.7	Vitros ECi
	U/ml	24.5	19.6	29.4	Abbott Architect XR/XR2 kit
	U/ml	14.9	11.9	17.9	Roche Cobas 6000/8000
U/ml	14.7	11.8	17.6	Roche Cobas E411	

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

Range					
Analyte	unit	Target	low	high	methods
CA 19-9	U/ml	18.9	15.1	22.7	Fujirebio Lumipulse G Series
	U/ml	8.74	6.99	10.5	Mindray CL-2000i
	U/ml	37.0	29.6	44.4	Diasorin Liaison XL
CA125	U/ml	26.6	21.3	31.9	Abbott Architect
	U/ml	18.8	15.0	22.6	BioMerieux Vidas
	U/ml	22.2	14.7	29.7	Siemens Centaur XP/XPT/Classic OV Kit
	U/ml	22.4	14.8	30.0	Siemens Centaur XP/XPT/Classic CA125 II kit
	U/ml	19.7	15.8	23.6	Siemens Immulite 2000/2500
	U/ml	20.2	16.2	24.2	Siemens Immulite 1000
	U/ml	17.2	13.8	20.6	Beckman Dxl800
	U/ml	17.5	14.0	21.0	Roche Elecsys
	U/ml	23.0	18.4	27.6	Diasorin Liaison
	U/ml	17.9	14.3	21.5	Beckman Access
	U/ml	29.8	23.8	35.8	Tosoh Series
	U/ml	17.1	13.7	20.5	Vitros Eci
	U/ml	17.6	14.1	21.1	Roche Cobas E411
	U/ml	17.2	13.8	20.6	Roche Cobas 6000/8000
	U/ml	16.9	13.5	20.3	Fujirebio Lumipulse G Series
	U/ml	22.7	15.0	30.4	Siemens Centaur CP CA125 II kit
U/ml	38.3	30.6	46.0	Mindray CL-2000i	
U/ml	22.3	17.8	26.8	Diasorin Liaison XL	
Carbamazepine	µmol/l	15.0	12.0	18.0	Abbott Architect
	µg/ml	3.55	2.84	4.26	
	µmol/l	17.3	12.5	22.1	Siemens Centaur XP/XPT/Classic
	µg/ml	4.09	2.94	5.24	
	µmol/l	13.9	11.1	16.7	Siemens Dimension
	µg/ml	3.29	2.62	3.96	
	µmol/l	12.2	9.76	14.6	Siemens Immulite 2000/2500
	µg/ml	2.88	2.31	3.45	
	µmol/l	12.1	9.68	14.5	Siemens Immulite 1000
	µg/ml	2.86	2.29	3.43	
	µmol/l	15.4	12.3	18.5	Roche Integra
	µg/ml	3.64	2.91	4.37	
	µmol/l	14.1	11.3	16.9	Roche Cobas 6000/8000
	µg/ml	3.33	2.67	3.99	
	µmol/l	14.3	11.4	17.2	Beckman DxC
	µg/ml	3.38	2.69	4.07	
µmol/l	16.0	12.8	19.2	Beckman AU400/600/640/2700/5400	
µg/ml	3.78	3.03	4.53		
µmol/l	15.4	12.3	18.5	Gravimetric	
µg/ml	3.64	2.91	4.37		
Carcinoembryonic Antigen (CEA)	ng/ml = µg/l	5.00	4.00	6.00	Abbott Architect
	ng/ml = µg/l	4.13	3.30	4.96	BioMerieux Vidas
	ng/ml = µg/l	4.82	3.18	6.46	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	4.80	3.84	5.76	CIS RIA Coated tube
	ng/ml = µg/l	5.21	4.17	6.25	Siemens Immulite 2000/2500

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

Analyte	unit	Target	Range		methods
			low	high	
Carcinoembryonic Antigen (CEA)	ng/ml = µg/l	5.30	4.24	6.36	Siemens Immulite 1000
	ng/ml = µg/l	4.34	3.47	5.21	Beckman Dxl800
	ng/ml = µg/l	4.28	3.42	5.14	Roche Elecsys
	ng/ml = µg/l	4.27	3.42	5.12	Diasorin Liaison
	ng/ml = µg/l	4.52	3.62	5.42	Beckman Access
	ng/ml = µg/l	5.97	4.78	7.16	Tosoh Series
	ng/ml = µg/l	4.59	3.67	5.51	Vitros ECi
	ng/ml = µg/l	4.19	3.35	5.03	Roche Cobas 6000/8000
	ng/ml = µg/l	4.30	3.44	5.16	Roche Cobas E411
	ng/ml = µg/l	6.06	4.85	7.27	Fujirebio Lumipulse G Series
	ng/ml = µg/l	4.91	3.24	6.58	Siemens Centaur CP
	ng/ml = µg/l	3.66	2.93	4.39	Mindray CL-2000i
ng/ml = µg/l	4.38	3.50	5.26	Diasorin Liaison XL	
Cortisol	nmol/l	195	146	244	Abbott Architect
	µg/dl	7.02	5.26	8.78	
	nmol/l	124	93.0	155	BioMerieux Vidas
	µg/dl	4.46	3.35	5.57	
	nmol/l	172	114	230	Siemens Centaur XP/XPT/Classic
	µg/dl	6.19	4.09	8.29	
	nmol/l	165	124	206	CIS RIA
	µg/dl	5.94	4.46	7.42	
	nmol/l	185	139	231	Siemens Immulite 2000/2500
	µg/dl	6.66	5.00	8.32	
	nmol/l	174	131	218	Siemens Immulite 1000
	µg/dl	6.26	4.72	7.80	
	nmol/l	178	134	223	Beckman Dxl800
	µg/dl	6.41	4.82	8.00	
	nmol/l	176	132	220	Roche Elecsys
	µg/dl	6.34	4.75	7.93	
	nmol/l	208	156	260	Diasorin Liaison
	µg/dl	7.49	5.62	9.36	
	nmol/l	180	135	225	Beckman Access
	µg/dl	6.48	4.86	8.10	
	nmol/l	162	122	203	Tosoh Series
	µg/dl	5.83	4.39	7.27	
	nmol/l	129	96.8	161	Vitros ECi
	µg/dl	4.64	3.48	5.80	
	nmol/l	172	129	215	Roche Cobas 6000/8000
	µg/dl	6.19	4.64	7.74	
	nmol/l	185	139	231	Roche Cobas E411
	µg/dl	6.66	5.00	8.32	
nmol/l	187	123	251	Siemens Centaur CP	
µg/dl	6.73	4.44	9.02		
nmol/l	188	141	235	Roche Cobas 4000/e411 Gen II	
µg/dl	6.77	5.08	8.46		
nmol/l	170	128	213	Roche Cobas 6000/8000 Gen II	
µg/dl	6.12	4.61	7.63		

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

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

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

Analyte	unit	Target	Range		methods
			low	high	
Ferritin	ng/ml = µg/l	17.5	14.0	21.0	Siemens Immulite 1000
	ng/ml = µg/l	12.8	10.2	15.4	Beckman Dxl800
	ng/ml = µg/l	20.2	16.2	24.2	Roche Elecsys
	ng/ml = µg/l	15.7	12.6	18.8	Diasorin Liaison
	ng/ml = µg/l	20.3	16.2	24.4	Roche Modular E170
	ng/ml = µg/l	13.1	10.5	15.7	Beckman Access
	ng/ml = µg/l	12.8	10.2	15.4	Tosoh Series
	ng/ml = µg/l	14.1	11.3	16.9	Vitros ECI
	ng/ml = µg/l	15.9	12.7	19.1	Immunotech IRMA
	ng/ml = µg/l	21.8	17.4	26.2	Roche Cobas E411
	ng/ml = µg/l	15.3	12.2	18.4	Beckman AU400/600/640/2700/5400
	ng/ml = µg/l	11.4	9.12	13.7	Fujirebio Lumipulse G Series
	ng/ml = µg/l	15.4	11.6	19.2	Siemens Centaur CP
	ng/ml = µg/l	15.3	12.2	18.4	Diasorin Liaison XL
Folate	nmol/l	3.76	2.86	4.66	Abbott Architect
	ng/ml	1.66	1.26	2.06	
	nmol/l	6.91	3.80	10.0	Siemens Centaur XP/XPT/Classic (enhanced kit)
	ng/ml	3.05	1.68	4.42	
	nmol/l	2.79	2.12	3.46	Siemens Immulite 2000
	ng/ml	1.23	0.935	1.53	
	nmol/l	3.73	2.83	4.63	Beckman Dxl800
	ng/ml	1.64	1.25	2.03	
	nmol/l	3.53	2.68	4.38	Beckman Access
	ng/ml	1.56	1.18	1.94	
Free T3	nmol/l	3.75	2.85	4.65	Vitros ECI
	ng/ml	1.65	1.26	2.04	
	nmol/l	2.44	1.85	3.03	Siemens Dimension
	ng/ml	1.08	0.816	1.34	
	pmol/l	2.55	1.91	3.19	Abbott Architect
	ng/dl	0.166	0.124	0.208	
	pg/ml	1.66	1.24	2.08	
	pmol/l	2.28	1.71	2.85	BioMerieux Vidas
	ng/dl	0.148	0.111	0.185	
	pg/ml	1.48	1.11	1.85	
	pmol/l	2.94	1.76	4.12	Siemens Centaur XP/XPT/Classic
	ng/dl	0.191	0.115	0.267	
	pg/ml	1.91	1.15	2.67	
	pmol/l	2.62	1.97	3.28	Siemens Immulite 2000/2500
ng/dl	0.170	0.128	0.212		
pg/ml	1.71	1.28	2.14		
pmol/l	2.63	1.97	3.29	Siemens Immulite 1000	
ng/dl	0.171	0.128	0.214		
pg/ml	1.71	1.28	2.14		
pmol/l	3.13	2.35	3.91	Beckman Dxl800	
ng/dl	0.203	0.153	0.253		
pg/ml	2.04	1.53	2.55		

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

Range					
Analyte	unit	Target	low	high	methods
Free T3	pmol/l	3.41	2.56	4.26	Roche Elecsys
	ng/dl	0.222	0.166	0.278	
	pg/ml	2.22	1.67	2.77	
	pmol/l	1.99	1.49	2.49	Diasorin Liaison
	ng/dl	0.129	0.097	0.161	
	pg/ml	1.30	0.970	1.63	
	pmol/l	3.12	2.34	3.90	Beckman Access
	ng/dl	0.203	0.152	0.254	
	pg/ml	2.03	1.52	2.54	
	pmol/l	4.97	3.73	6.21	Vitros ECI
	ng/dl	0.323	0.242	0.404	
	pg/ml	3.24	2.43	4.05	
	pmol/l	3.53	2.65	4.41	Roche Cobas E411
	ng/dl	0.229	0.172	0.286	
	pg/ml	2.30	1.73	2.87	
	pmol/l	3.31	2.48	4.14	Roche Cobas 6000/8000
	ng/dl	0.215	0.161	0.269	
	pg/ml	2.15	1.61	2.69	
	pmol/l	3.20	1.92	4.48	Siemens Centaur CP
	ng/dl	0.208	0.125	0.291	
	pg/ml	2.08	1.25	2.91	
pmol/l	2.68	2.01	3.35	Mindray CL-2000i	
ng/dl	0.174	0.131	0.217		
pg/ml	1.74	1.31	2.17		
pmol/l	2.18	1.64	2.73	Diasorin Liaison XL	
ng/dl	0.142	0.107	0.177		
pg/ml	1.42	1.07	1.77		
Free T4	pmol/l	8.97	6.73	11.2	Abbott Architect
	ng/dl	0.700	0.525	0.875	
	pg/ml	7.00	5.25	8.75	
	pmol/l	7.98	5.99	9.98	Siemens Centaur XP/XPT/Classic
	ng/dl	0.622	0.467	0.777	
	pg/ml	6.22	4.67	7.77	
	pmol/l	10.5	7.88	13.1	CIS RIA Coated tube
	ng/dl	0.819	0.615	1.02	
	pg/ml	8.19	6.15	10.2	
	pmol/l	12.8	9.60	16.0	Siemens Immulite 2000/2500
	ng/dl	0.998	0.749	1.25	
	pg/ml	9.98	7.49	12.5	
	pmol/l	12.3	9.23	15.4	Siemens Immulite 1000
	ng/dl	0.959	0.720	1.20	
	pg/ml	9.59	7.20	12.0	
	pmol/l	9.46	7.10	11.8	Beckman Dxl800
	ng/dl	0.738	0.554	0.922	
	pg/ml	7.38	5.54	9.22	
	pmol/l	12.0	9.00	15.0	Roche Elecsys
	ng/dl	0.936	0.702	1.17	
	pg/ml	9.36	7.02	11.7	

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

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

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

Range					
Analyte	unit	Target	low	high	methods
FSH	mU/ml	6.44	5.15	7.73	Roche Cobas E411
	mU/ml	6.00	4.80	7.20	Roche Cobas 6000/8000
	mU/ml	5.11	4.09	6.13	Fujirebio Lumipulse G Series
	mU/ml	6.74	4.72	8.76	Siemens Centaur CP
	mU/ml	10.2	8.16	12.2	Diasorin Liaison XL
Gentamicin	µmol/l	4.39	3.16	5.62	Siemens Centaur XP/XPT/Classic
	µg/ml	2.10	1.51	2.69	
	µmol/l	3.87	3.10	4.64	Roche Cobas 6000/8000
	µg/ml	1.85	1.48	2.22	
	µmol/l	4.85	3.88	5.82	Gravimetric
Growth Hormone (GH)	µU/ml	4.89	3.91	5.87	Siemens Immulite 2000/2500
	ng/ml	1.63	1.30	1.96	
	µU/ml	4.88	3.90	5.86	Siemens Immulite 1000
	ng/ml	1.63	1.30	1.96	
	µU/ml	3.59	2.87	4.31	Beckman Dxl800
	ng/ml	1.20	0.956	1.44	
	µU/ml	3.64	2.91	4.37	Beckman Access
	ng/ml	1.21	0.969	1.45	
	µU/ml	4.55	3.64	5.46	Tosoh Series
	ng/ml	1.52	1.21	1.83	
	µU/ml	3.68	2.94	4.42	Diasorin Liaison
	ng/ml	1.23	0.979	1.48	
	µU/ml	4.52	3.62	5.42	Roche Cobas E411
	ng/ml	1.51	1.21	1.81	
	µU/ml	4.52	3.62	5.42	Roche Cobas 6000/8000
ng/ml	1.51	1.21	1.81		
Immunoglobulin E	KIU/l = IU/ml	232	186	278	Abbott Architect
	KIU/l = IU/ml	199	159	239	BioMerieux Vidas
	KIU/l = IU/ml	258	155	361	Siemens Centaur XP/XPT/Classic
	KIU/l = IU/ml	253	202	304	Siemens Immulite 2000/2500
	KIU/l = IU/ml	257	206	308	Siemens Immulite 1000
	KIU/l = IU/ml	217	174	260	Beckman Dxl800
	KIU/l = IU/ml	233	186	280	Roche Elecsys
	KIU/l = IU/ml	223	178	268	Pharmacia Unicap
	KIU/l = IU/ml	225	180	270	Tosoh Series
	KIU/l = IU/ml	246	197	295	Roche Cobas E411
	KIU/l = IU/ml	241	193	289	Roche Cobas 6000/8000
	KIU/l = IU/ml	201	161	241	Fujirebio Lumipulse G Series
	KIU/l = IU/ml	241	145	337	Siemens Centaur CP
Insulin	mU/l	1.51	1.13	1.89	Siemens Centaur XP/XPT/Classic
	µU/ml	1.51	1.13	1.89	
	mU/l	1.96	1.47	2.45	Roche Elecsys
	µU/ml	1.96	1.47	2.45	

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

Analyte	unit	Target	Range		methods
			low	high	
Insulin	mU/l	0.823	0.617	1.03	Beckman Access
	µU/ml	0.823	0.617	1.03	
	mU/l	1.29	0.968	1.61	Abbott Architect
	µU/ml	1.29	0.968	1.61	
	mU/l	3.85	2.89	4.81	Tosoh Series
	µU/ml	3.85	2.89	4.81	
	mU/l	1.97	1.48	2.46	Roche Cobas E411
	µU/ml	1.97	1.48	2.46	
	mU/l	0.780	0.585	0.975	Beckman Dxl 600/800
	µU/ml	0.780	0.585	0.975	
	mU/l	1.11	0.833	1.39	Diasorin Liaison
	µU/ml	1.11	0.833	1.39	
	mU/l	2.16	1.62	2.70	Roche Cobas 6000/8000
	µU/ml	2.16	1.62	2.70	
	mU/l	5.64	4.23	7.05	SNIBE Maglumi Analysers
	µU/ml	5.64	4.23	7.05	
	mU/l	1.72	1.29	2.15	Fujirebio Lumipulse G Series
	µU/ml	1.72	1.29	2.15	
mU/l	1.32	0.990	1.65	Siemens Centaur CP	
µU/ml	1.32	0.990	1.65		
mU/l	1.38	1.04	1.73	Siemens Atellica IM	
µU/ml	1.38	1.04	1.72		
Luteinising Hormone (LH)	mU/ml	2.37	1.90	2.84	Abbott Architect
	mU/ml	3.10	2.48	3.72	BioMerieux Vidas
	mU/ml	2.94	2.21	3.67	Siemens Centaur XP/XPT/Classic
	mU/ml	5.37	4.30	6.44	Siemens Immulite 2000
	mU/ml	5.65	4.52	6.78	Siemens Immulite 1000
	mU/ml	2.26	1.81	2.71	Beckman Dxl800
	mU/ml	3.79	3.03	4.55	Roche Elecsys
	mU/ml	3.94	3.15	4.73	Diasorin Liaison
	mU/ml	2.33	1.86	2.80	Beckman Access
	mU/ml	2.62	2.10	3.14	Tosoh Series
	mU/ml	6.16	4.93	7.39	Vitros ECI
	mU/ml	3.84	3.07	4.61	Roche Cobas E411
	mU/ml	3.80	3.04	4.56	Roche Cobas 6000/8000
	mU/ml	2.64	2.11	3.17	Fujirebio Lumipulse G Series
	mU/ml	2.72	2.04	3.40	Siemens Centaur CP
	mU/ml	3.72	2.98	4.46	Mindray CL-2000i
	mU/ml	3.84	3.07	4.61	Diasorin Liaison XL
	Oestradiol	pmol/l	172	138	206
pg/ml		46.8	37.5	56.1	
pmol/l		253	202	304	BioMerieux Vidas
pg/ml		68.8	54.9	82.7	
pmol/l		131	78.6	183	Siemens Centaur XP/XPT/Classic
pg/ml		35.6	21.4	49.8	
pmol/l	89.6	71.7	108	Siemens Immulite 1000	
pg/ml	24.4	19.5	29.3		

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

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

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

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

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

Analyte	unit	Target	Range		methods
			low	high	
Progesterone	nmol/l	1.87	1.50	2.24	Beckman Dxl Prog DE Cal A80773
	ng/ml	0.585	0.470	0.700	
	nmol/l	3.19	1.75	4.63	Siemens Centaur CP
	ng/ml	0.998	0.549	1.45	
	nmol/l	2.33	1.86	2.80	Fujirebio Lumipulse G Series
	ng/ml	0.729	0.582	0.876	
	nmol/l	3.53	2.82	4.24	Roche Cobas 6000/8000 (Prog. III)
	ng/ml	1.10	0.883	1.32	
	nmol/l	3.77	3.02	4.52	Roche Elecsys (Prog. III)
	ng/ml	1.18	0.945	1.42	
	nmol/l	3.54	2.83	4.25	Roche Cobas 4000/e411 (Prog. III)
	ng/ml	1.11	0.886	1.33	
	nmol/l	1.95	1.56	2.34	Diasorin Liaison XL
	ng/ml	0.610	0.488	0.732	
Prolactin	µU/ml	133	106	160	Abbott Architect
	µU/ml	140	112	168	BioMerieux Vidas
	µU/ml	123	86.1	160	Siemens Centaur XP/XPT/Classic
	µU/ml	119	95.2	143	Siemens Immulite 2000/2500
	µU/ml	133	106	160	Siemens Immulite 1000
	µU/ml	108	86.4	130	Beckman Dxl800
	µU/ml	107	85.6	128	Roche Elecsys
	µU/ml	129	103	155	Diasorin Liaison
	µU/ml	113	90.4	136	Beckman Access
	µU/ml	126	101	151	Tosoh Series
	µU/ml	199	159	239	Vitros ECi
	µU/ml	107	85.6	128	Roche Elecsys/E170/Cobas 6000/8000 PRLII
	µU/ml	134	107	161	Immunotech IRMA
	µU/ml	109	87.2	131	Roche Cobas E411
	µU/ml	106	84.8	127	Roche Cobas 6000/8000
	µU/ml	151	121	181	Fujirebio Lumipulse G Series
	µU/ml	113	79.1	147	Siemens Centaur CP
	µU/ml	184	147	221	Mindray CL-2000i
µU/ml	126	101	151	Diasorin Liaison XL	
PSA Free	ng/ml = µg/l	1.48	1.11	1.85	Abbott Architect
	ng/ml = µg/l	1.14	0.855	1.43	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	1.18	0.885	1.48	Siemens Immulite 2000/2500
	ng/ml = µg/l	1.02	0.765	1.28	Siemens Immulite 1000
	ng/ml = µg/l	1.39	1.04	1.74	Beckman DXI standardised to Hybritech
	ng/ml = µg/l	0.890	0.668	1.11	Roche Elecsys
	ng/ml = µg/l	0.782	0.587	0.978	Diasorin Liaison
	ng/ml = µg/l	1.50	1.13	1.88	Beckman Access standardised to Hybritech
	ng/ml = µg/l	0.805	0.604	1.01	Tosoh Series
	ng/ml = µg/l	0.890	0.668	1.11	Roche Cobas E411
	ng/ml = µg/l	0.901	0.676	1.13	Roche Cobas 6000/8000
	ng/ml = µg/l	1.29	0.968	1.61	Beckman Dxl800 standardised to WHO IRP96/670

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

Analyte	unit	Target	Range		methods
			low	high	
PSA Free	ng/ml = µg/l	1.48	1.11	1.85	Beckman Access standardised to WHO IRP96/670
	ng/ml = µg/l	0.442	0.332	0.553	Ortho Vitros 3600/5600/ECi PSA II
	ng/ml = µg/l	0.963	0.722	1.20	Fujirebio Lumipulse G Series
	ng/ml = µg/l	0.771	0.578	0.964	Diasorin Liaison XL
PSA Total	ng/ml = µg/l	1.40	1.05	1.75	Abbott Architect
	ng/ml = µg/l	1.65	1.24	2.06	BioMerieux Vidas
	ng/ml = µg/l	1.75	1.31	2.19	bioMerieux VIDAS TPSA
	ng/ml = µg/l	1.57	1.18	1.96	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	0.692	0.519	0.865	Siemens Immulite 2000/2500 1st generation
	ng/ml = µg/l	0.684	0.513	0.855	Siemens Immulite 2000/2500 3rd generation
	ng/ml = µg/l	0.736	0.552	0.920	Siemens Immulite 1000 1st generation
	ng/ml = µg/l	2.05	1.54	2.56	Beckman Dxl standardisd to Hybritech
	ng/ml = µg/l	1.71	1.28	2.14	Beckman Dxl800 standardised to WHO IRP96/670
	ng/ml = µg/l	1.90	1.43	2.38	Roche Elecsys
	ng/ml = µg/l	0.920	0.690	1.15	Diasorin Liaison
	ng/ml = µg/l	2.10	1.58	2.63	Beckman Access standardised to Hybritech
	ng/ml = µg/l	2.06	1.55	2.58	Beckman Access standardised to WHO IRP96/670
	ng/ml = µg/l	1.18	0.885	1.48	Tosoh Series
	ng/ml = µg/l	1.81	1.36	2.26	Vitros ECi
	ng/ml = µg/l	2.37	1.78	2.96	CIS RIA Coated tube
	ng/ml = µg/l	1.87	1.40	2.34	Roche Cobas E411
	ng/ml = µg/l	1.94	1.46	2.43	Roche Cobas 6000/8000
	ng/ml = µg/l	1.80	1.35	2.25	SNIBE Maglumi Analysers
	ng/ml = µg/l	1.28	0.960	1.60	Fujirebio Lumipulse G Series
ng/ml = µg/l	1.89	1.42	2.36	Ortho Vitros 3600/5600/ECi PSA II	
ng/ml = µg/l	1.51	1.13	1.89	Siemens Centaur CP	
ng/ml = µg/l	0.845	0.634	1.06	Diasorin Liaison XL	
Salicylic Acid	mmol/l	0.286	0.230	0.340	Gravimetric
	mg/dl	3.95	3.18	4.70	
SHBG	nmol/l	12.4	9.92	14.9	Siemens Immulite 1000
	nmol/l	13.0	10.4	15.6	Siemens Immulite 2000/2500
	nmol/l	12.7	10.2	15.2	Abbott Architect
	nmol/l	12.3	9.84	14.8	Roche Cobas E411
	nmol/l	11.6	9.28	13.9	Roche Cobas 6000/8000
	nmol/l	11.7	9.36	14.0	Beckman Dxl800
T Uptake	%U	33.0	27.1	38.9	Siemens Immulite 2000
Testosterone	nmol/l	2.17	1.74	2.60	Abbott Architect
	ng/ml	0.625	0.501	0.749	
	ng/dl	62.5	50.1	74.9	
	nmol/l	1.12	0.896	1.34	BioMerieux Vidas
	ng/ml	0.323	0.258	0.388	
	ng/dl	32.3	25.8	38.8	
	nmol/l	1.68	1.09	2.27	Siemens Centaur XP/XPT/Classic
	ng/ml	0.484	0.315	0.653	
	ng/dl	48.4	31.5	65.3	
	nmol/l	1.64	1.31	1.97	CIS RIA Coated tube
ng/ml	0.472	0.377	0.567		
ng/dl	47.2	37.7	56.7		

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

Analyte	unit	Target	Range		methods
			low	high	
Testosterone	nmol/l	1.16	0.928	1.39	Siemens Immulite 2000/2500
	ng/ml	0.334	0.267	0.401	
	ng/dl	33.4	26.7	40.1	
	nmol/l	1.55	1.24	1.86	Beckman Dxl800
	ng/ml	0.446	0.357	0.535	
	ng/dl	44.6	35.7	53.5	
	nmol/l	1.70	1.36	2.04	Beckman Access
	ng/ml	0.490	0.392	0.588	
	ng/dl	49.0	39.2	58.8	
	nmol/l	1.17	0.936	1.40	Tosoh Series
	ng/ml	0.337	0.270	0.404	
	ng/dl	33.7	27.0	40.4	
	nmol/l	0.988	0.790	1.19	Vitros ECI
	ng/ml	0.285	0.228	0.342	
	ng/dl	28.5	22.8	34.2	
	nmol/l	1.78	1.42	2.14	Roche Cobas 6000 Test 2
	ng/ml	0.513	0.409	0.617	
	ng/dl	51.3	40.9	61.7	
	nmol/l	1.83	1.46	2.20	Roche Elecsys Test II
	ng/ml	0.527	0.420	0.634	
	ng/dl	52.7	42.0	63.4	
	nmol/l	1.88	1.50	2.26	Roche Cobas 4000/e411 Test II
	ng/ml	0.541	0.432	0.650	
	ng/dl	54.1	43.2	65.0	
nmol/l	2.13	1.70	2.56	Abbott Architect 2nd Generation	
ng/ml	0.613	0.490	0.736		
ng/dl	61.3	49.0	73.6		
nmol/l	1.54	1.00	2.08	Siemens Centaur CP	
ng/ml	0.444	0.289	0.599		
ng/dl	44.4	28.9	59.9		
nmol/l	1.13	0.904	1.36	BioMerieux Vidas Testosterone II	
ng/ml	0.325	0.260	0.390		
ng/dl	32.5	26.0	39.0		
nmol/l	1.18	0.944	1.42	Mindray CL-2000i	
ng/ml	0.340	0.272	0.408		
ng/dl	34.0	27.2	40.8		
nmol/l	1.70	1.11	2.29	Siemens Centaur TST II	
ng/ml	0.490	0.319	0.661		
ng/dl	49.0	31.9	66.1		
nmol/l	0.871	0.697	1.05	Diasorin Liaison XL	
ng/ml	0.251	0.201	0.301		
ng/dl	25.1	20.1	30.1		
Theophylline	µmol/l	28.2	22.6	33.8	Roche Integra
	µg/ml	5.08	4.07	6.09	

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

Analyte	unit	Target	Range		methods	
			low	high		
Theophylline	µmol/l	25.0	20.0	30.0	Abbott Architect	
	µg/ml	4.51	3.60	5.42		
	µmol/l	25.8	20.6	31.0	Roche Cobas 6000/8000	
	µg/ml	4.65	3.71	5.59		
	µmol/l	22.2	17.8	26.6	Beckman DxC	
	µg/ml	4.00	3.21	4.79		
	µmol/l	24.7	19.8	29.6	Beckman AU400/600/640/2700/5400	
	µg/ml	4.45	3.57	5.33		
	µmol/l	28.3	22.6	34.0	Gravimetric	
	µg/ml	5.10	4.07	6.13		
	Thyroglobulin	ng/ml	0.200	0.150	0.250	Siemens Immulite 1000
		ng/ml	2.15	1.61	2.69	Roche Elecsys
ng/ml		1.44	1.08	1.80	Beckman Dxl800	
ng/ml		2.10	1.58	2.63	Roche Cobas E411	
ng/ml		2.06	1.55	2.58	Roche Cobas 6000/8000	
ng/ml		1.51	1.13	1.89	Beckman Access	
ng/ml		1.57	1.18	1.96	Abbott Architect 2000i	
ng/ml		1.81	1.36	2.26	Tosoh Series	
ng/ml		2.06	1.55	2.58	Roche Cobas 6000 TGII	
ng/ml		2.12	1.59	2.65	Roche Elecsys TGII	
ng/ml		2.11	1.58	2.64	Roche Cobas 4000/E411 TGII	
Thyroid Stimulating Hormone		µU/ml = mIU/l	0.081	0.065	0.097	Abbott Architect
	µU/ml = mIU/l	0.060	0.048	0.072	bioMerieux VIDAS TSH	
	µU/ml = mIU/l	0.056	0.045	0.067	bioMerieux VIDAS TSH3 Ultrasensitive	
	µU/ml = mIU/l	0.092	0.063	0.121	Siemens Centaur XP/XPT/Classic	
	µU/ml = mIU/l	0.138	0.110	0.166	CIS IRMA	
	µU/ml = mIU/l	0.089	0.061	0.117	Siemens Centaur XP/XPT/Classic 3rd Generation	
	µU/ml = mIU/l	0.086	0.069	0.103	Siemens Immulite 2000/2500	
	µU/ml = mIU/l	0.108	0.086	0.130	Siemens Immulite 1000	
	µU/ml = mIU/l	0.076	0.061	0.091	Beckman Dxl800 Fast TSH	
	µU/ml = mIU/l	0.074	0.059	0.089	Beckman Dxl800	
	µU/ml = mIU/l	0.117	0.094	0.140	Roche Elecsys	
	µU/ml = mIU/l	0.115	0.092	0.138	Diasorin Liaison	
	µU/ml = mIU/l	0.080	0.064	0.096	Beckman Access Fast TSH	
	µU/ml = mIU/l	0.078	0.062	0.094	Beckman Access hyperTSH 3rd Generation	
	µU/ml = mIU/l	0.093	0.074	0.112	Tosoh Series	
	µU/ml = mIU/l	0.146	0.117	0.175	Vitros ECi	
	µU/ml = mIU/l	0.119	0.095	0.143	Roche Cobas E411	
	µU/ml = mIU/l	0.117	0.094	0.140	Roche Cobas 6000/8000	
	µU/ml = mIU/l	0.074	0.059	0.089	Beckman Dxl800 Hyper TSH	
	µU/ml = mIU/l	0.089	0.061	0.117	Siemens Centaur XP/XPT/Classic TSH3-Ultra	
	µU/ml = mIU/l	0.089	0.061	0.117	Siemens Centaur CP	
	µU/ml = mIU/l	0.086	0.058	0.114	Siemens Centaur CP TSH3-Ultra	
	µU/ml = mIU/l	0.145	0.116	0.174	Mindray CL-2000i	
	µU/ml = mIU/l	0.075	0.060	0.090	Beckman Dxl 600/800 Access (3rd IS)	
µU/ml = mIU/l	0.135	0.108	0.162	Diasorin Liaison XL		

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

Range					
Analyte	unit	Target	low	high	methods
Tobramycin	µmol/l	4.17	3.34	5.00	Gravimetric
	µg/ml	1.95	1.56	2.34	
Total Beta hCG	mU/ml=IU/l	9.18	7.34	11.0	Abbott Architect
	IU/ml	0.009	0.007	0.011	
	mU/ml=IU/l	22.5	18.0	27.0	BioMerieux Vidas
	IU/ml	0.023	0.018	0.028	
	mU/ml=IU/l	13.5	8.10	18.9	Siemens Centaur XP/XPT/Classic
	IU/ml	0.014	0.008	0.019	
	mU/ml=IU/l	28.4	22.7	34.1	Siemens Dimension
	IU/ml	0.028	0.023	0.033	
	mU/ml=IU/l	42.1	33.7	50.5	Siemens Immulite 2000
	IU/ml	0.042	0.034	0.050	
	mU/ml=IU/l	38.5	30.8	46.2	Siemens Immulite 1000
	IU/ml	0.039	0.031	0.047	
	mU/ml=IU/l	10.3	8.24	12.4	Beckman Dxl800
	IU/ml	0.010	0.008	0.012	
	mU/ml=IU/l	8.95	7.16	10.7	Diasorin Liaison
	IU/ml	0.009	0.007	0.011	
	mU/ml=IU/l	13.6	10.9	16.3	Roche Cobas Core EIA
	IU/ml	0.014	0.011	0.017	
	mU/ml=IU/l	10.2	8.16	12.2	Beckman Access
	IU/ml	0.010	0.008	0.012	
	mU/ml=IU/l	24.2	19.4	29.0	Tosoh Series
	IU/ml	0.024	0.019	0.029	
	mU/ml=IU/l	26.8	21.4	32.2	Vitros ECI
	IU/ml	0.027	0.021	0.033	
	mU/ml=IU/l	10.6	8.48	12.7	Roche STAT (Intact)
	IU/ml	0.011	0.008	0.014	
	mU/ml=IU/l	13.7	11.0	16.4	Roche hCG+Beta
	IU/ml	0.014	0.011	0.017	
	mU/ml=IU/l	26.1	20.9	31.3	SNIBE Maglumi Analysers
	IU/ml	0.026	0.021	0.031	
	mU/ml=IU/l	6.85	5.48	8.22	Fujirebio Lumipulse G Series
	IU/ml	0.007	0.005	0.009	
mU/ml=IU/l	10.3	8.24	12.4	Beckman Access Total BhCG (5th IS)	
IU/ml	0.010	0.008	0.012		
mU/ml=IU/l	10.3	8.24	12.4	Beckman Dxl Total BhCG (5th IS)	
IU/ml	0.010	0.008	0.012		
mU/ml=IU/l	11.1	6.66	15.5	Siemens Centaur CP	
IU/ml	0.011	0.007	0.016		
mU/ml=IU/l	8.69	6.95	10.4	Diasorin Liaison XL	
IU/ml	0.009	0.007	0.011		
Total T3	nmol/l	0.713	0.535	0.891	Abbott Architect
	ng/ml	0.464	0.348	0.580	
	ng/dl	46.4	34.8	58.0	
	nmol/l	0.444	0.333	0.555	BioMerieux Vidas
	ng/ml	0.289	0.217	0.361	
	ng/dl	28.9	21.7	36.1	

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

Analyte	unit	Target	Range		methods
			low	high	
Total T3	nmol/l	0.449	0.337	0.561	Siemens Centaur XP/XPT/Classic
	ng/ml	0.292	0.219	0.365	
	ng/dl	29.2	21.9	36.5	
	nmol/l	0.616	0.462	0.770	Siemens Immulite 2000/2500
	ng/ml	0.401	0.301	0.501	
	ng/dl	40.1	30.1	50.1	
	nmol/l	0.616	0.462	0.770	Siemens Immulite 1000
	ng/ml	0.401	0.301	0.501	
	ng/dl	40.1	30.1	50.1	
	nmol/l	0.902	0.677	1.13	Beckman Dxl800
	ng/ml	0.587	0.441	0.733	
	ng/dl	58.7	44.1	73.3	
	nmol/l	1.22	0.915	1.53	Roche Elecsys
	ng/ml	0.794	0.596	0.992	
	ng/dl	79.4	59.6	99.2	
	nmol/l	1.05	0.788	1.31	Beckman Access
	ng/ml	0.684	0.513	0.855	
	ng/dl	68.4	51.3	85.5	
	nmol/l	0.462	0.347	0.578	Tosoh Series
	ng/ml	0.301	0.226	0.376	
	ng/dl	30.1	22.6	37.6	
nmol/l	0.645	0.484	0.806	Vitros ECI	
ng/ml	0.420	0.315	0.525		
ng/dl	42.0	31.5	52.5		
nmol/l	0.581	0.436	0.726	CIS RIA Coated tube	
ng/ml	0.378	0.284	0.472		
ng/dl	37.8	28.4	47.2		
nmol/l	1.15	0.863	1.44	Roche Cobas E411	
ng/ml	0.749	0.562	0.936		
ng/dl	74.9	56.2	93.6		
nmol/l	0.980	0.735	1.23	Roche Cobas 6000/8000	
ng/ml	0.638	0.478	0.798		
ng/dl	63.8	47.8	79.8		
nmol/l	0.879	0.659	1.10	Diasorin Liaison XL	
ng/ml	0.572	0.429	0.715		
ng/dl	57.2	42.9	71.5		
Total T4	nmol/l	32.0	24.0	40.0	Abbott Architect
	µg/dl	2.50	1.87	3.13	
	ng/ml	25.0	18.7	31.3	
	nmol/l	29.0	21.8	36.3	BioMerieux Vidas
	µg/dl	2.26	1.70	2.82	
	ng/ml	22.6	17.0	28.2	
	nmol/l	22.0	15.4	28.6	Siemens Centaur XP/XPT/Classic
	µg/dl	1.72	1.20	2.24	
	ng/ml	17.2	12.0	22.4	

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

Analyte	unit	Target	Range		methods
			low	high	
Total T4	nmol/l	23.3	17.5	29.1	Siemens Immulite 2000/2500
	µg/dl	1.82	1.37	2.27	
	ng/ml	18.2	13.7	22.7	
	nmol/l	22.8	17.1	28.5	Siemens Immulite 1000
	µg/dl	1.78	1.33	2.23	
	ng/ml	17.8	13.3	22.3	
	nmol/l	16.9	12.7	21.1	Beckman Dxl800
	µg/dl	1.32	0.991	1.65	
	ng/ml	13.2	9.91	16.5	
	nmol/l	36.7	27.5	45.9	Roche Elecsys
	µg/dl	2.86	2.15	3.57	
	ng/ml	28.6	21.5	35.7	
	nmol/l	21.6	16.2	27.0	Beckman Access
	µg/dl	1.68	1.26	2.10	
	ng/ml	16.8	12.6	21.0	
	nmol/l	25.0	18.8	31.3	Tosoh Series
	µg/dl	1.95	1.47	2.43	
	ng/ml	19.5	14.7	24.3	
	nmol/l	27.5	20.6	34.4	Vitros ECi
	µg/dl	2.15	1.61	2.69	
	ng/ml	21.5	16.1	26.9	
	nmol/l	29.1	21.8	36.4	CIS RIA Coated tube
	µg/dl	2.27	1.70	2.84	
	ng/ml	22.7	17.0	28.4	
	nmol/l	36.9	27.7	46.1	Roche Cobas E411
	µg/dl	2.88	2.16	3.60	
	ng/ml	28.8	21.6	36.0	
	nmol/l	36.3	27.2	45.4	Roche Cobas 6000/8000
	µg/dl	2.83	2.12	3.54	
	ng/ml	28.3	21.2	35.4	
nmol/l	29.9	22.4	37.4	Immunotech IRMA	
µg/dl	2.33	1.75	2.91		
ng/ml	23.3	17.5	29.1		
nmol/l	32.4	24.3	40.5	ELISA	
µg/dl	2.53	1.90	3.16		
ng/ml	25.3	19.0	31.6		
nmol/l	20.8	15.6	26.0	Boditech Med Inc i-CHROMA	
µg/dl	1.62	1.22	2.02		
ng/ml	16.2	12.2	20.2		
nmol/l	21.4	15.0	27.8	Siemens Centaur CP	
µg/dl	1.67	1.17	2.17		
ng/ml	16.7	11.7	21.7		
nmol/l	33.8	25.4	42.3	Diasorin Liaison XL	
µg/dl	2.64	1.98	3.30		
ng/ml	26.4	19.8	33.0		

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

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

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

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

Range					
Analyte	unit	Target	low	high	methods
Vitamin B12	pmol/l	86.2	69.0	103	Beckman Dxl800
	pg/ml	117	93.5	141	
	pmol/l	138	110	166	Roche Elecsys
	pg/ml	187	149	225	
	pmol/l	86.8	69.4	104	Beckman Access
	pg/ml	118	94.0	142	
	pmol/l	122	97.6	146	Tosoh Series
	pg/ml	165	132	198	
	pmol/l	133	106	160	Vitros ECI
	pg/ml	180	144	216	
	pmol/l	100	80.0	120	Siemens Dimension
	pg/ml	136	108	164	
	pmol/l	115	80.5	149	Siemens Centaur CP
	pg/ml	156	109	203	

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

CAT. NO. IA3110	GTIN: 05055273207262	SIZE: 12 x 5 ml
CAT. NO. IA3112	GTIN: 05055273207286	SIZE: 4 x 5 ml
LOT NO. 1977EC	EXPIRY: 2023-04-28	

INTENDED USE

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

This device is for prescription use only.

SAFETY PRECAUTIONS AND WARNINGS

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

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

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

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

Health and Safety Data Sheets are available on request.

STORAGE AND STABILITY

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

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

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

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

PREPARATION

Immunoassay Premium Plus is supplied lyophilised.

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

MATERIAL REQUIRED BUT NOT PROVIDED

Volumetric pipette

VALUE ASSIGNMENT

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

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



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

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IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

Cat. No. IA3110 / IA3112 Lot No. 1977EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2023-04-28

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	100	75.0	125	Siemens Centaur XP/XPT/Classic
	nmol/l	60.1	45.1	75.1	Roche Vitamin D Total
	nmol/l	62.9	47.2	78.6	Abbott Architect
	nmol/l	83.6	62.7	105	Vitros ECI
	nmol/l	65.9	49.4	82.4	BioMerieux Vidas
	nmol/l	60.4	45.3	75.5	Beckman Dxl 600/800
	nmol/l	60.5	45.4	75.6	Abbott Architect (5P02)/ Alinity (8P45)
	nmol/l	66.8	50.1	83.5	Roche Vitamin D Total II
ACTH	pmol/l	14.8	11.1	18.5	Siemens Immulite 2000/2500
	pg/ml	67.3	50.4	84.2	
	pmol/l	16.2	12.2	20.3	Roche Cobas E411
	pg/ml	73.6	55.4	91.8	
	pmol/l	14.9	11.2	18.6	Roche Cobas 6000/8000
	pg/ml	67.7	50.9	84.5	
Aldosterone	pmol/l	406	305	508	Diasorin Liaison XL
	pg/ml	146	110	182	
Alpha-fetoprotein	KIU/l = IU/ml	39.8	31.8	47.8	BioMerieux Vidas
	ng/ml	48.2	38.5	57.9	
	KIU/l = IU/ml	44.7	35.8	53.6	Vitros ECI
	ng/ml	46.5	37.2	55.8	
	KIU/l = IU/ml	52.0	41.1	62.9	Siemens Centaur XP/XPT/Classic
	ng/ml	62.9	49.7	76.1	
	KIU/l = IU/ml	39.6	31.7	47.5	Siemens Immulite 2000/2500
	ng/ml	47.9	38.4	57.4	
	KIU/l = IU/ml	42.3	33.8	50.8	Abbott Architect
	ng/ml	51.2	40.9	61.5	
	KIU/l = IU/ml	39.6	31.7	47.5	Beckman Dxl800
	ng/ml	47.9	38.4	57.4	
KIU/l = IU/ml	47.8	38.2	57.4	Roche Cobas 6000/8000	
ng/ml	57.8	46.2	69.4		
Amikacin	KIU/l = IU/ml	47.1	37.7	56.5	Roche Cobas E411
	ng/ml	57.0	45.6	68.4	
Amikacin	µmol/l	15.2	12.2	18.2	Gravimetric
	µg/ml	8.90	7.14	10.7	
Androstenedione	nmol/l	11.9	8.93	14.9	Siemens Immulite 2000
	ng/ml	3.42	2.56	4.28	
Beta-2-microglobulin	µg/ml = mg/l	3.21	2.57	3.85	BioMerieux Vidas
	µg/ml = mg/l	3.07	2.46	3.68	Abbott Architect

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

Cat. No. IA3110 / IA3112 Lot No. 1977EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2023-04-28

Analyte	unit	Target	Range		methods
			low	high	
Beta-2-microglobulin	µg/ml = mg/l	3.06	2.45	3.67	Roche Cobas 6000/8000
C-Peptide	nmol/l	2.220	1.670	2.780	Siemens Immulite 2000/2500
	ng/ml	6.70	5.04	8.36	
	nmol/l	2.270	1.700	2.840	Roche Cobas 6000/8000
	ng/ml	6.85	5.13	8.57	
CA 15-3	U/ml	37.9	25.8	50.0	Siemens Centaur XP/XPT/Classic
	U/ml	41.3	33.0	49.6	Abbott Architect
	U/ml	17.2	13.8	20.6	Beckman Dxl800
	U/ml	40.0	32.0	48.0	Roche Cobas 6000/8000
	U/ml	38.8	31.0	46.6	Roche Cobas E411
CA 19-9	U/ml	39.9	31.9	47.9	BioMerieux Vidas
	U/ml	47.6	32.4	62.8	Siemens Centaur XP/XPT/Classic
	U/ml	300	240	360	Siemens Immulite 2000/2500
	U/ml	104	83.2	125	Vitros ECi
	U/ml	301	241	361	Beckman Dxl800
	U/ml	66.9	53.5	80.3	Abbott Architect XR/XR2 kit
	U/ml	67.4	53.9	80.9	Roche Cobas 6000/8000
	U/ml	68.6	54.9	82.3	Roche Cobas E411
CA125	U/ml	57.7	46.2	69.2	BioMerieux Vidas
	U/ml	27.7	22.2	33.2	Siemens Immulite 2000/2500
	U/ml	40.8	32.6	49.0	Vitros ECi
	U/ml	62.6	50.1	75.1	Abbott Architect
	U/ml	36.2	24.6	47.8	Siemens Centaur XP/XPT/Classic CA125 II kit
	U/ml	15.5	12.4	18.6	Beckman Dxl800
	U/ml	76.8	61.4	92.2	Roche Cobas E411
Carbamazepine	µmol/l	36.8	29.4	44.2	Abbott Architect
	µg/ml	8.70	6.95	10.5	
	µmol/l	37.8	30.2	45.4	Roche Cobas 6000/8000
	µg/ml	8.94	7.14	10.7	
	µmol/l	38.5	30.8	46.2	Gravimetric
	µg/ml	9.10	7.28	10.9	
Carcinoembryonic Antigen (CEA)	ng/ml = µg/l	24.1	19.3	28.9	BioMerieux Vidas
	ng/ml = µg/l	25.6	20.5	30.7	Vitros ECi
	ng/ml = µg/l	22.2	17.8	26.6	Beckman Access
	ng/ml = µg/l	25.7	17.5	33.9	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	30.1	24.1	36.1	Siemens Immulite 2000/2500
	ng/ml = µg/l	26.8	21.4	32.2	Abbott Architect
	ng/ml = µg/l	21.7	17.4	26.0	Beckman Dxl800
	ng/ml = µg/l	21.8	17.4	26.2	Roche Cobas 6000/8000
	ng/ml = µg/l	22.5	18.0	27.0	Roche Cobas E411
Cortisol	nmol/l	799	599	999	Beckman Access
	µg/dl	28.8	21.6	36.0	
	nmol/l	783	540	1026	Siemens Centaur XP/XPT/Classic
	µg/dl	28.2	19.5	36.9	
	nmol/l	684	513	855	Siemens Immulite 2000/2500
µg/dl	24.6	18.5	30.7		

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

Cat. No. IA3110 / IA3112 Lot No. 1977EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2023-04-28

Analyte	unit	Target	Range		methods
			low	high	
Cortisol	nmol/l	651	488	814	Vitros ECI
	µg/dl	23.4	17.6	29.2	
	nmol/l	616	462	770	Abbott Architect
	µg/dl	22.2	16.6	27.8	
	nmol/l	638	479	798	Beckman Dxl800
	µg/dl	23.0	17.2	28.8	
	nmol/l	779	584	974	Roche Cobas 6000/8000
	µg/dl	28.0	21.0	35.0	
	nmol/l	766	575	958	Roche Cobas E411
	µg/dl	27.6	20.7	34.5	
DHEA-S	nmol/l	742	557	928	Roche Cobas 4000/e411 Gen II
	µg/dl	26.7	20.1	33.3	
	nmol/l	693	520	866	Roche Cobas 6000/8000 Gen II
	µg/dl	24.9	18.7	31.1	
	µmol/l	11.1	8.88	13.3	Siemens Immulite 2000/2500
Digoxin	µmol/l	13.1	10.5	15.7	Abbott Architect
	µmol/l	11.2	7.28	15.1	Siemens Centaur XP/XPT/Classic
	µmol/l	15.9	12.7	19.1	Roche Cobas E411
	µmol/l	15.8	12.6	19.0	Roche Cobas 6000/8000
	nmol/l	3.12	2.50	3.74	Siemens Immulite 2000/2500
Ethosuximide	ng/ml	2.44	1.95	2.93	
	nmol/l	2.33	1.86	2.80	Abbott Architect
	ng/ml	1.82	1.45	2.19	
	nmol/l	2.77	2.22	3.32	Beckman Dxl800
	ng/ml	2.16	1.73	2.59	
	nmol/l	3.07	2.46	3.68	Gravimetric
Ferritin	ng/ml	2.40	1.92	2.87	
	µmol/l	360	288	432	Gravimetric
Folate	µg/ml	51.0	40.8	61.3	
	ng/ml = µg/l	86.5	69.2	104	BioMerieux Vidas
	ng/ml = µg/l	104	83.2	125	Roche Elecsys
	ng/ml = µg/l	69.6	55.7	83.5	Beckman Access
	ng/ml = µg/l	63.3	50.6	76.0	Vitros ECI
	ng/ml = µg/l	82.9	62.2	104	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	89.5	71.6	107	Siemens Immulite 2000/2500
	ng/ml = µg/l	102	81.6	122	Abbott Architect
	ng/ml = µg/l	105	84.0	126	Roche Modular E170
	ng/ml = µg/l	67.5	54.0	81.0	Beckman Dxl800
Folate	ng/ml = µg/l	104	83.2	125	Roche Cobas E411
	nmol/l	12.1	9.20	15.0	Beckman Access
	ng/ml	5.34	4.06	6.62	
	nmol/l	8.49	6.45	10.5	Siemens Immulite 2000
	ng/ml	3.74	2.84	4.64	
Folate	nmol/l	7.99	6.07	9.91	Vitros ECI
	ng/ml	3.52	2.68	4.36	

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

Cat. No. IA3110 / IA3112 Lot No. 1977EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2023-04-28

Analyte	unit	Target	Range		methods
			low	high	
Folate	nmol/l	9.74	7.40	12.1	Abbott Architect
	ng/ml	4.30	3.26	5.34	
	nmol/l	22.7	14.8	30.6	Siemens Centaur XP/XPT/Classic (enhanced kit)
	ng/ml	10.0	6.50	13.5	
	nmol/l	11.8	8.97	14.6	Beckman DxI800
ng/ml	5.20	3.96	6.44		
Free T3	pmol/l	16.5	12.4	20.6	Roche Elecsys
	ng/dl	1.07	0.806	1.33	
	pg/ml	10.7	8.07	13.3	
	pmol/l	11.4	8.55	14.3	Beckman Access
	ng/dl	0.741	0.556	0.926	
	pg/ml	7.42	5.57	9.27	
	pmol/l	30.9	23.2	38.6	Vitros ECI
	ng/dl	2.01	1.51	2.51	
	pg/ml	20.1	15.1	25.1	
	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	10.4	7.80	13.0	Siemens Immulite 2000/2500
	ng/dl	0.676	0.507	0.845	
	pg/ml	6.77	5.08	8.46	
	pmol/l	12.6	9.45	15.8	Abbott Architect
	ng/dl	0.819	0.614	1.02	
	pg/ml	8.20	6.15	10.3	
	pmol/l	9.51	7.13	11.9	Beckman DxI800
	ng/dl	0.618	0.463	0.773	
pg/ml	6.19	4.64	7.74		
pmol/l	15.6	11.7	19.5	Roche Cobas E411	
ng/dl	1.01	0.761	1.26		
pg/ml	10.2	7.62	12.8		
pmol/l	16.3	12.2	20.4	Roche Cobas 6000/8000	
ng/dl	1.06	0.793	1.33		
pg/ml	10.6	7.94	13.3		
Free T4	pmol/l	29.2	21.9	36.5	Roche Elecsys
	ng/dl	2.28	1.71	2.85	
	pg/ml	22.8	17.1	28.5	
	pmol/l	23.0	17.3	28.8	Beckman Access
	ng/dl	1.79	1.35	2.23	
	pg/ml	17.9	13.5	22.3	
	pmol/l	57.5	43.1	71.9	Vitros ECI
	ng/dl	4.49	3.36	5.62	
	pg/ml	44.9	33.6	56.2	
	pmol/l	21.9	16.4	27.4	Siemens Centaur XP/XPT/Classic
	ng/dl	1.71	1.28	2.14	
	pg/ml	17.1	12.8	21.4	
	pmol/l	29.1	21.8	36.4	Siemens Immulite 2000/2500
	ng/dl	2.27	1.70	2.84	
	pg/ml	22.7	17.0	28.4	

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

Cat. No. IA3110 / IA3112 Lot No. 1977EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2023-04-28

Analyte	unit	Target	Range		methods
			low	high	
Free T4	pmol/l	20.3	15.2	25.4	Abbott Architect
	ng/dl	1.58	1.19	1.97	
	pg/ml	15.8	11.9	19.7	
	pmol/l	22.6	17.0	28.3	Beckman Dxl800
	ng/dl	1.76	1.33	2.19	
	pg/ml	17.6	13.3	21.9	
	pmol/l	27.0	20.3	33.8	Roche Cobas 6000/8000
	ng/dl	2.11	1.58	2.64	
	pg/ml	21.1	15.8	26.4	
	pmol/l	26.8	20.1	33.5	Roche Cobas E411
	ng/dl	2.09	1.57	2.61	
	pg/ml	20.9	15.7	26.1	
	pmol/l	28.6	21.5	35.8	Biomerieux Vidas FT4N Kit
	ng/dl	2.23	1.68	2.78	
	pg/ml	22.3	16.8	27.8	
pmol/l	23.4	17.6	29.3	Mindray CL-2000i	
ng/dl	1.83	1.37	2.29		
pg/ml	18.3	13.7	22.9		
FSH	mU/ml	27.7	22.2	33.2	BioMerieux Vidas
	mU/ml	20.4	16.3	24.5	Vitros ECi
	mU/ml	30.8	23.1	38.5	Siemens Centaur XP/XPT/Classic
	mU/ml	23.5	18.8	28.2	Siemens Immulite 2000/2500
	mU/ml	22.8	18.2	27.4	Abbott Architect
	mU/ml	27.6	22.1	33.1	Beckman Dxl800
	mU/ml	23.9	19.1	28.7	Roche Cobas E411
	mU/ml	22.9	18.3	27.5	Roche Cobas 6000/8000
Gentamicin	µmol/l	8.16	6.53	9.79	Gravimetric
	µg/ml	3.90	3.12	4.68	
Growth Hormone (GH)	µU/ml	18.5	14.8	22.2	Siemens Immulite 2000/2500
	ng/ml	6.16	4.93	7.39	
	µU/ml	14.0	11.2	16.8	Beckman Dxl800
	ng/ml	4.66	3.73	5.59	
	µU/ml	16.6	13.3	19.9	Roche Cobas E411
	ng/ml	5.53	4.43	6.63	
	µU/ml	16.3	13.0	19.6	Roche Cobas 6000/8000
	ng/ml	5.43	4.33	6.53	
µU/ml	15.4	12.3	18.5	Diasorin Liaison XL	
ng/ml	5.13	4.10	6.16		
Immunoglobulin E	KIU/I = IU/ml	91.0	72.8	109	BioMerieux Vidas
	KIU/I = IU/ml	128	76.8	179	Siemens Centaur XP/XPT/Classic
	KIU/I = IU/ml	135	108	162	Siemens Immulite 2000/2500
	KIU/I = IU/ml	115	92.0	138	Abbott Architect
	KIU/I = IU/ml	139	111	167	Roche Cobas E411
	KIU/I = IU/ml	140	112	168	Roche Cobas 6000/8000

IMMUNOASSAY PREMIUM PLUS LEVEL 2 (IA PREMIUM PLUS 2)

Cat. No. IA3110 / IA3112 Lot No. 1977EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2023-04-28

Analyte	unit	Target	Range		methods
			low	high	
Insulin	mU/l	3.89	2.92	4.86	Siemens Immulite 2000
	µU/ml	3.89	2.92	4.86	
	mU/l	12.0	9.00	15.0	Beckman Access
	µU/ml	12.0	9.00	15.0	
	mU/l	13.0	9.75	16.3	Abbott Architect
	µU/ml	13.0	9.75	16.3	
	mU/l	15.4	11.6	19.3	Roche Cobas E411
	µU/ml	15.4	11.6	19.2	
	mU/l	14.9	11.2	18.6	Roche Cobas 6000/8000
	µU/ml	14.9	11.2	18.6	
Luteinising Hormone (LH)	mU/ml	31.6	25.3	37.9	Beckman Access
	mU/ml	36.6	29.3	43.9	BioMerieux Vidas
	mU/ml	52.6	42.1	63.1	Vitros ECi
	mU/ml	36.4	28.0	44.8	Siemens Centaur XP/XPT/Classic
	mU/ml	60.9	48.7	73.1	Siemens Immulite 2000
	mU/ml	31.1	24.9	37.3	Abbott Architect
	mU/ml	29.1	23.3	34.9	Beckman Dxl800
	mU/ml	39.6	31.7	47.5	Roche Cobas E411
	mU/ml	38.7	31.0	46.4	Roche Cobas 6000/8000
Oestradiol	pmol/l	1336	1069	1603	BioMerieux Vidas
	pg/ml	363	291	435	
	pmol/l	1076	861	1291	Vitros ECi
	pg/ml	293	234	352	
	pmol/l	756	605	907	Abbott Architect
	pg/ml	206	165	247	
	pmol/l	1006	805	1207	Beckman Dxl800
	pg/ml	274	219	329	
	pmol/l	821	657	985	Roche Cobas 6000/8000 (Estradiol II)
	pg/ml	223	179	267	
	pmol/l	822	658	986	Roche Cobas 4000/E411 (Estradiol II)
	pg/ml	224	179	269	
	pmol/l	1072	643	1501	Siemens Centaur XP/XPT/Classic Enhanced (eE2)
	pg/ml	292	175	409	
	pmol/l	816	653	979	Roche Cobas 6000/8000 (Estradiol III)
	pg/ml	222	178	266	
pmol/l	781	625	937	Roche Cobas 4000/E411 (Estradiol III)	
pg/ml	212	170	254		
pmol/l	856	685	1027	Beckman Dxl600/800 Sensitive B84493	
pg/ml	233	186	280		
Paracetamol	mmol/l	0.316	0.253	0.379	Roche Cobas 6000/8000
	mg/l	47.8	38.3	57.3	
	mmol/l	0.348	0.280	0.420	Gravimetric
	mg/l	52.7	42.4	63.5	
Phenobarbital	µmol/l	78.4	62.7	94.1	Abbott Architect
	µg/ml	18.2	14.5	21.9	

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

Cat. No. IA3110 / IA3112 Lot No. 1977EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2023-04-28

Analyte	unit	Target	Range		methods
			low	high	
Phenobarbital	µmol/l	75.2	60.2	90.2	Siemens Immulite 2000/2500
	µg/ml	17.4	14.0	20.8	
	µmol/l	77.6	62.1	93.1	Gravimetric
	µg/ml	18.0	14.4	21.6	
Phenytoin	µmol/l	65.3	52.2	78.4	Abbott Architect
	µg/ml	16.5	13.2	19.8	
	µmol/l	65.5	52.4	78.6	Roche Cobas 6000/8000
	µg/ml	16.5	13.2	19.8	
	µmol/l	71.3	57.0	85.6	Gravimetric
Primidone	µmol/l	22.5	18.0	27.0	Gravimetric
	µg/ml	4.91	3.93	5.89	
Progesterone	nmol/l	42.6	34.1	51.1	BioMerieux Vidas
	ng/ml	13.3	10.7	15.9	
	nmol/l	23.6	16.5	30.7	Siemens Centaur XP/XPT/Classic
	ng/ml	7.39	5.17	9.61	
	nmol/l	25.2	20.2	30.2	Siemens Immulite 2000/2500
	ng/ml	7.89	6.32	9.46	
	nmol/l	26.5	21.2	31.8	Abbott Architect
	ng/ml	8.29	6.64	9.94	
	nmol/l	35.0	28.0	42.0	Beckman Dxl Prog Cal 33555
	ng/ml	11.0	8.76	13.2	
	nmol/l	34.9	27.9	41.9	Roche Cobas 4000/e411 (Prog. II)
	ng/ml	10.9	8.73	13.1	
	nmol/l	33.6	26.9	40.3	Roche Cobas 6000/8000 (Prog. II)
	ng/ml	10.5	8.42	12.6	
Prolactin	µU/ml	753	602	904	BioMerieux Vidas
	µU/ml	540	432	648	Vitros ECi
	µU/ml	532	415	649	Siemens Centaur XP/XPT/Classic
	µU/ml	541	433	649	Siemens Immulite 2000/2500
	µU/ml	632	506	758	Abbott Architect
	µU/ml	514	411	617	Beckman Dxl800
	µU/ml	611	489	733	Roche Elecsys/E170/Cobas 6000/8000 PRLII
	µU/ml	643	514	772	Roche Cobas E411
	µU/ml	609	487	731	Roche Cobas 6000/8000
	PSA Free	ng/ml = µg/l	10.4	7.80	13.0
ng/ml = µg/l		13.2	9.90	16.5	Beckman Access standardised to Hybritech
ng/ml = µg/l		10.3	7.73	12.9	Siemens Centaur XP/XPT/Classic
ng/ml = µg/l		11.7	8.78	14.6	Beckman DXI standardised to Hybritech

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

Cat. No. IA3110 / IA3112 Lot No. 1977EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2023-04-28

Analyte	unit	Target	Range		methods
			low	high	
PSA Free	ng/ml = µg/l	9.20	6.90	11.5	Roche Cobas E411
	ng/ml = µg/l	9.30	6.98	11.6	Roche Cobas 6000/8000
PSA Total	ng/ml = µg/l	12.7	9.53	15.9	Beckman Access standardised to Hybritech
	ng/ml = µg/l	10.6	7.95	13.3	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	11.7	8.78	14.6	bioMerieux VIDAS TPSA
	ng/ml = µg/l	8.93	6.70	11.2	Siemens Immulite 2000/2500 1st generation
	ng/ml = µg/l	10.2	7.65	12.8	Abbott Architect
	ng/ml = µg/l	12.8	9.60	16.0	Vitros ECi
	ng/ml = µg/l	12.8	9.60	16.0	Beckman Access standardised to WHO IRP96/670
	ng/ml = µg/l	11.8	8.85	14.8	Beckman Dxl standardisd to Hybritech
	ng/ml = µg/l	9.56	7.17	12.0	Beckman Dxl800 standardised to WHO IRP96/670
	ng/ml = µg/l	12.9	9.68	16.1	Roche Cobas E411
	ng/ml = µg/l	12.9	9.68	16.1	Roche Cobas 6000/8000
	ng/ml = µg/l	12.8	9.60	16.0	Ortho Vitros 3600/5600/ECi PSA II
Salicylic Acid	mmol/l	1.22	0.980	1.46	Gravimetric
	mg/dl	16.9	13.5	20.2	
SHBG	nmol/l	39.4	31.5	47.3	Siemens Immulite 2000/2500
	nmol/l	38.1	30.5	45.7	Abbott Architect
	nmol/l	38.8	31.0	46.6	Beckman Dxl800
T Uptake	%U	34.5	28.3	40.7	Siemens Immulite 2000
Testosterone	nmol/l	19.2	15.4	23.0	Vitros ECi
	ng/ml	5.53	4.44	6.62	
	ng/dl	553	444	662	
	nmol/l	17.7	14.2	21.2	Siemens Immulite 2000/2500
	ng/ml	5.10	4.09	6.11	
	ng/dl	510	409	611	
	nmol/l	15.2	12.2	18.2	Abbott Architect
	ng/ml	4.38	3.51	5.25	
	ng/dl	438	351	525	
	nmol/l	13.5	10.8	16.2	Beckman Dxl800
	ng/ml	3.89	3.11	4.67	
	ng/dl	389	311	467	
	nmol/l	16.8	13.4	20.2	Roche Cobas 4000/e411 Test II
	ng/ml	4.84	3.86	5.82	
	ng/dl	484	386	582	
	nmol/l	17.2	13.8	20.6	Roche Cobas 6000 Test 2
	ng/ml	4.95	3.97	5.93	
	ng/dl	495	397	593	
nmol/l	15.5	12.4	18.6	Abbott Architect 2nd Generation	
ng/ml	4.46	3.57	5.35		
ng/dl	446	357	535		
nmol/l	15.3	10.7	19.9	Siemens Centaur TST II	
ng/ml	4.41	3.09	5.73		
ng/dl	441	309	573		
Theophylline	µmol/l	77.3	61.8	92.8	Roche Cobas 6000/8000
	µg/ml	13.9	11.1	16.7	

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

Cat. No. IA3110 / IA3112 Lot No. 1977EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2023-04-28

Analyte	unit	Target	Range		methods
			low	high	
Theophylline	µmol/l	83.8	67.0	101	Gravimetric
	µg/ml	15.1	12.1	18.2	
Thyroglobulin	ng/ml	15.0	11.3	18.8	Siemens Immulite 2000
	ng/ml	36.5	27.4	45.6	Roche Cobas 6000/8000
	ng/ml	36.7	27.5	45.9	Roche Cobas 6000 TGII
Thyroid Stimulating Hormone	µU/ml = mIU/l	1.93	1.54	2.32	bioMerieux VIDAS TSH
	µU/ml = mIU/l	2.33	1.86	2.80	Siemens Immulite 1000
	µU/ml = mIU/l	2.19	1.75	2.63	Beckman Access hyperTSH 3rd Generation
	µU/ml = mIU/l	2.62	2.10	3.14	Vitros ECI
	µU/ml = mIU/l	2.24	1.52	2.96	Siemens Centaur XP/XPT/Classic
	µU/ml = mIU/l	2.32	1.86	2.78	Siemens Immulite 2000/2500
	µU/ml = mIU/l	1.94	1.55	2.33	Abbott Architect
	µU/ml = mIU/l	1.74	1.39	2.09	bioMerieux VIDAS TSH3 Ultrasensitive
	µU/ml = mIU/l	2.02	1.62	2.42	Beckman Access Fast TSH
	µU/ml = mIU/l	2.40	1.92	2.88	Roche Cobas E411
	µU/ml = mIU/l	2.40	1.92	2.88	Roche Cobas 6000/8000
	µU/ml = mIU/l	2.12	1.70	2.54	Beckman DxI800 Hyper TSH
	µU/ml = mIU/l	2.23	1.52	2.94	Siemens Centaur XP/XPT/Classic TSH3-Ultra
	µU/ml = mIU/l	3.17	2.54	3.80	Mindray CL-2000i
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	35.8	28.6	43.0	BioMerieux Vidas
	IU/ml	0.036	0.029	0.043	
	mU/ml=IU/l	36.7	29.4	44.0	Beckman Access
	IU/ml	0.037	0.029	0.045	
	mU/ml=IU/l	35.9	28.7	43.1	Vitros ECI
	IU/ml	0.036	0.029	0.043	
	mU/ml=IU/l	40.6	24.4	56.8	Siemens Centaur XP/XPT/Classic
	IU/ml	0.041	0.024	0.057	
	mU/ml=IU/l	43.2	34.6	51.8	Siemens Immulite 2000
	IU/ml	0.043	0.035	0.051	
	mU/ml=IU/l	36.1	28.9	43.3	Abbott Architect
	IU/ml	0.036	0.029	0.043	
	mU/ml=IU/l	38.2	30.6	45.8	Siemens Dimension
	IU/ml	0.038	0.031	0.045	
	mU/ml=IU/l	38.8	31.0	46.6	Beckman DxI800
	IU/ml	0.039	0.031	0.047	
	mU/ml=IU/l	34.9	27.9	41.9	Roche STAT (Intact)
	IU/ml	0.035	0.028	0.042	
	mU/ml=IU/l	33.8	27.0	40.6	Roche hCG+Beta
	IU/ml	0.034	0.027	0.041	
mU/ml=IU/l	38.3	30.6	46.0	Beckman Access Total BhCG (5th IS)	
IU/ml	0.038	0.031	0.045		
mU/ml=IU/l	38.8	31.0	46.6	Beckman DxI Total BhCG (5th IS)	
IU/ml	0.039	0.031	0.047		

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

Cat. No. IA3110 / IA3112 Lot No. 1977EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2023-04-28

Analyte	unit	Target	Range		methods
			low	high	
Total T3	nmol/l	4.30	3.23	5.38	BioMerieux Vidas
	ng/ml	2.80	2.10	3.50	
	ng/dl	280	210	350	
	nmol/l	4.51	3.38	5.64	Siemens Centaur XP/XPT/Classic
	ng/ml	2.94	2.20	3.68	
	ng/dl	294	220	368	
	nmol/l	4.28	3.21	5.35	Siemens Immulite 2000/2500
	ng/ml	2.79	2.09	3.49	
	ng/dl	279	209	349	
	nmol/l	3.61	2.71	4.51	Abbott Architect
	ng/ml	2.35	1.76	2.94	
	ng/dl	235	176	294	
	nmol/l	4.25	3.19	5.31	Vitros ECI
	ng/ml	2.77	2.08	3.46	
	ng/dl	277	208	346	
nmol/l	4.56	3.42	5.70	Roche Cobas E411	
ng/ml	2.97	2.23	3.71		
ng/dl	297	223	371		
nmol/l	4.34	3.26	5.43	Roche Cobas 6000/8000	
ng/ml	2.83	2.12	3.54		
ng/dl	283	212	354		
Total T4	nmol/l	104	78.0	130	Vitros ECI
	µg/dl	8.11	6.08	10.1	
	ng/ml	81.1	60.8	101	
	nmol/l	117	87.8	146	BioMerieux Vidas
	µg/dl	9.13	6.85	11.4	
	ng/ml	91.3	68.5	114	
	nmol/l	107	80.3	134	Siemens Immulite 1000
	µg/dl	8.35	6.26	10.4	
	ng/ml	83.5	62.6	104	
	nmol/l	112	84.0	140	Beckman Access
	µg/dl	8.74	6.55	10.9	
	ng/ml	87.4	65.5	109	
	nmol/l	102	66.3	138	Siemens Centaur XP/XPT/Classic
	µg/dl	7.96	5.17	10.7	
	ng/ml	79.6	51.7	107	
	nmol/l	103	77.3	129	Siemens Immulite 2000/2500
	µg/dl	8.03	6.03	10.0	
	ng/ml	80.3	60.3	100	
	nmol/l	101	75.8	126	Abbott Architect
	µg/dl	7.88	5.91	9.85	
	ng/ml	78.8	59.1	98.5	
nmol/l	109	81.8	136	Roche Cobas E411	
µg/dl	8.50	6.38	10.6		
ng/ml	85.0	63.8	106		
nmol/l	106	79.5	133	Roche Cobas 6000/8000	
µg/dl	8.27	6.20	10.3		
ng/ml	82.7	62.0	103		

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

Cat. No. IA3110 / IA3112 Lot No. 1977EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2023-04-28

Analyte	unit	Target	Range		methods
			low	high	
Valproic Acid	µmol/l	523	418	628	Siemens Immulite 2000/2500
	µg/ml	75.5	60.3	90.7	
	µmol/l	513	410	616	Abbott Architect
	µg/ml	74.0	59.2	88.8	
	µmol/l	553	442	664	Roche Cobas 6000/8000
	µg/ml	79.8	63.8	95.8	
Vancomycin	µmol/l	638	510	766	Gravimetric
	µg/ml	92.1	73.6	111	
	µmol/l	7.14	5.71	8.57	Abbott Architect
	µg/ml	10.6	8.48	12.7	
	µmol/l	5.85	4.68	7.02	Roche Cobas 6000/8000
	µg/ml	8.69	6.95	10.4	
Vitamin B12	µmol/l	7.10	5.68	8.52	Gravimetric
	µg/ml	10.5	8.44	12.7	
	pmol/l	359	287	431	Beckman Access
	pg/ml	486	389	583	
	pmol/l	446	335	557	Siemens Centaur XP/XPT/Classic
	pg/ml	604	453	755	
	pmol/l	390	312	468	Siemens Immulite 2000
	pg/ml	528	423	633	
	pmol/l	408	326	490	Abbott Architect
	pg/ml	553	442	664	
pmol/l	383	306	460	Vitros ECi	
pg/ml	519	415	623		
pmol/l	315	252	378	Beckman DxI800	
pg/ml	427	341	513		

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

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

INTENDED USE

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

This device is for prescription use only.

SAFETY PRECAUTIONS AND WARNINGS

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

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

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

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

Health and Safety Data Sheets are available on request.

STORAGE AND STABILITY

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

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

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

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

PREPARATION

Immunoassay Premium Plus is supplied lyophilised.

- 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 Plus - Level 3: 12 x 5 ml Tri-Level: 4 x 5 ml

MATERIAL REQUIRED BUT NOT PROVIDED

Volumetric pipette

VALUE ASSIGNMENT

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

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

EC REP

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

Rev. 03 Nov '20 ne

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

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

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

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

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Range					
Analyte	unit	Target	low	high	methods
Beta-2-microglobulin	µg/ml = mg/l	5.60	4.48	6.72	Behring Nephelometer
	µg/ml = mg/l	4.77	3.82	5.72	Siemens Immulite 2000/2500
	µg/ml = mg/l	5.79	4.63	6.95	Tosoh Series
	µg/ml = mg/l	5.59	4.47	6.71	Roche Cobas 6000/8000
	µg/ml = mg/l	4.48	3.58	5.38	Fujirebio Lumipulse G Series
	µg/ml = mg/l	6.43	5.14	7.72	Siemens ADVIA 1200/1650/1800/2400
C-Peptide	nmol/l	3.500	2.630	4.380	Siemens Immulite 2000/2500
	ng/ml	10.6	7.94	13.3	
	nmol/l	3.220	2.420	4.030	Roche Elecsys
	ng/ml	9.72	7.31	12.1	
	nmol/l	3.520	2.640	4.400	Roche Cobas 6000/8000
	ng/ml	10.6	7.97	13.2	
	nmol/l	3.410	2.560	4.260	Siemens Immulite 1000
	ng/ml	10.3	7.73	12.9	
	nmol/l	3.910	2.930	4.890	Diasorin Liaison
	ng/ml	11.8	8.85	14.8	
	nmol/l	3.450	2.590	4.310	Roche Cobas E411
	ng/ml	10.4	7.82	13.0	
	nmol/l	3.210	2.410	4.010	Abbott Architect
	ng/ml	9.69	7.28	12.1	
	nmol/l	2.740	2.060	3.420	Siemens Centaur XP/XPT/Classic
	ng/ml	8.27	6.20	10.3	
	nmol/l	3.250	2.440	4.060	Tosoh Series
	ng/ml	9.81	7.37	12.3	
	nmol/l	3.610	2.710	4.510	Fujirebio Lumipulse G Series
	ng/ml	10.9	8.18	13.6	
nmol/l	3.750	2.810	4.690	Diasorin Liaison XL	
ng/ml	11.3	8.48	14.1		
nmol/l	2.710	2.030	3.390	Siemens Atellica IM	
ng/ml	8.18	6.13	10.2		
CA 15-3	U/ml	83.5	66.8	100	Abbott Architect
	U/ml	66.4	53.1	79.7	BioMerieux Vidas
	U/ml	75.4	52.0	98.8	Siemens Centaur XP/XPT/Classic
	U/ml	64.5	51.6	77.4	Siemens Immulite 2000/2500
	U/ml	84.4	67.5	101	Siemens Immulite 1000
	U/ml	27.8	22.2	33.4	Beckman Dxl800
	U/ml	71.7	57.4	86.0	Roche Elecsys
	U/ml	84.5	67.6	101	Diasorin Liaison
	U/ml	26.8	21.4	32.2	Beckman Access
	U/ml	79.1	63.3	94.9	Tosoh Series
	U/ml	69.8	55.8	83.8	Vitros ECi
	U/ml	75.2	60.2	90.2	Roche Cobas 6000/8000
	U/ml	75.2	60.2	90.2	Roche Cobas E411
	U/ml	84.1	67.3	101	Fujirebio Lumipulse G Series
	U/ml	74.2	51.2	97.2	Siemens Centaur CP
	U/ml	27.8	22.2	33.4	Mindray CL-2000i

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Range					
Analyte	unit	Target	low	high	methods
CA 15-3	U/ml	77.8	62.2	93.4	Diasorin Liaison XL
CA 19-9	U/ml	161	129	193	BioMerieux Vidas
	U/ml	183	126	240	Siemens Centaur XP/XPT/Classic
	U/ml	231	185	277	Siemens Immulite 2000/2500
	U/ml	200	160	240	Beckman Dxl800
	U/ml	111	88.8	133	Roche Elecsys
	U/ml	191	153	229	Diasorin Liaison
	U/ml	238	190	286	Beckman Access
	U/ml	82.9	66.3	99.0	Tosoh Series
	U/ml	229	183	275	Vitros ECi
	U/ml	401	321	481	Abbott Architect XR/XR2 kit
	U/ml	108	86.4	130	Roche Cobas 6000/8000
	U/ml	109	87.2	131	Roche Cobas E411
	U/ml	192	154	230	Fujirebio Lumipulse G Series
	U/ml	172	119	225	Siemens Centaur CP
	U/ml	100	80.0	120	Mindray CL-2000i
U/ml	220	176	264	Diasorin Liaison XL	
CA125	U/ml	220	176	264	Abbott Architect
	U/ml	177	142	212	BioMerieux Vidas
	U/ml	190	131	249	Siemens Centaur XP/XPT/Classic OV Kit
	U/ml	193	133	253	Siemens Centaur XP/XPT/Classic CA125 II kit
	U/ml	185	148	222	Siemens Immulite 2000/2500
	U/ml	208	166	250	Siemens Immulite 1000
	U/ml	157	126	188	Beckman Dxl800
	U/ml	160	128	192	Roche Elecsys
	U/ml	241	193	289	Diasorin Liaison
	U/ml	161	129	193	Beckman Access
	U/ml	280	224	336	Tosoh Series
	U/ml	171	137	205	Vitros ECi
	U/ml	162	130	194	Roche Cobas E411
	U/ml	160	128	192	Roche Cobas 6000/8000
	U/ml	160	128	192	Fujirebio Lumipulse G Series
	U/ml	198	137	259	Siemens Centaur CP CA125 II kit
	U/ml	321	257	385	Mindray CL-2000i
	U/ml	220	176	264	Diasorin Liaison XL
Carbamazepine	µmol/l	69.4	55.5	83.3	Abbott Architect
	µg/ml	16.4	13.1	19.7	
	µmol/l	70.3	43.6	97.0	Siemens Centaur XP/XPT/Classic
	µg/ml	16.6	10.3	22.9	
	µmol/l	68.2	54.6	81.8	Siemens Dimension
	µg/ml	16.1	12.9	19.3	
	µmol/l	62.5	50.0	75.0	Siemens Immulite 2000/2500
	µg/ml	14.8	11.8	17.8	
	µmol/l	62.8	50.2	75.4	Siemens Immulite 1000
	µg/ml	14.8	11.9	17.7	
µmol/l	75.6	60.5	90.7	Roche Integra	
µg/ml	17.9	14.3	21.5		

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Analyte	unit	Target	Range		methods	
			low	high		
Carbamazepine	µmol/l	63.5	50.8	76.2	Vitros	
	µg/ml	15.0	12.0	18.0		
	µmol/l	70.5	56.4	84.6	Roche Cobas 6000/8000	
	µg/ml	16.7	13.3	20.1		
	µmol/l	69.6	55.7	83.5	Beckman DxC	
	µg/ml	16.5	13.2	19.8		
	µmol/l	73.6	62.6	84.6	Beckman AU400/600/640/2700/5400	
	µg/ml	17.4	14.8	20.0		
	µmol/l	72.2	57.8	86.6	Gravimetric	
	µg/ml	17.1	13.7	20.5		
	Carcinoembryonic Antigen (CEA)	ng/ml = µg/l	68.1	54.5	81.7	Abbott Architect
		ng/ml = µg/l	63.8	51.0	76.6	BioMerieux Vidas
ng/ml = µg/l		59.6	41.1	78.1	Siemens Centaur XP/XPT/Classic	
ng/ml = µg/l		55.4	44.3	66.5	CIS RIA Coated tube	
ng/ml = µg/l		77.5	62.0	93.0	Siemens Immulite 2000/2500	
ng/ml = µg/l		85.6	68.5	103	Siemens Immulite 1000	
ng/ml = µg/l		57.2	45.8	68.6	Beckman Dxl800	
ng/ml = µg/l		52.2	41.8	62.6	Roche Elecsys	
ng/ml = µg/l		55.2	44.2	66.2	Diasorin Liaison	
ng/ml = µg/l		60.2	48.2	72.2	Beckman Access	
ng/ml = µg/l		73.9	59.1	88.7	Tosoh Series	
ng/ml = µg/l		62.9	50.3	75.5	Vitros ECi	
ng/ml = µg/l		51.4	41.1	61.7	Roche Cobas 6000/8000	
ng/ml = µg/l		52.5	42.0	63.0	Roche Cobas E411	
ng/ml = µg/l		74.5	59.6	89.4	Fujirebio Lumipulse G Series	
ng/ml = µg/l		60.8	48.6	73.0	Boditech Med Inc i-CHROMA	
ng/ml = µg/l		59.6	41.1	78.1	Siemens Centaur CP	
ng/ml = µg/l		44.9	35.9	53.9	Mindray CL-2000i	
ng/ml = µg/l	65.4	52.3	78.5	Diasorin Liaison XL		
Cortisol	nmol/l	821	616	1026	Abbott Architect	
	µg/dl	29.6	22.2	37.0		
	nmol/l	929	697	1161	BioMerieux Vidas	
	µg/dl	33.4	25.1	41.7		
	nmol/l	1062	733	1391	Siemens Centaur XP/XPT/Classic	
	µg/dl	38.2	26.4	50.0		
	nmol/l	780	585	975	CIS RIA	
	µg/dl	28.1	21.1	35.1		
	nmol/l	907	680	1134	Siemens Immulite 2000/2500	
	µg/dl	32.7	24.5	40.9		
	nmol/l	892	669	1115	Siemens Immulite 1000	
	µg/dl	32.1	24.1	40.1		
	nmol/l	907	680	1134	Beckman Dxl800	
	µg/dl	32.7	24.5	40.9		
nmol/l	997	748	1246	Roche Elecsys		
µg/dl	35.9	26.9	44.9			

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Analyte	unit	Target	Range		methods
			low	high	
Cortisol	nmol/l	940	705	1175	Diasorin Liaison
	µg/dl	33.8	25.4	42.2	
	nmol/l	969	727	1211	Beckman Access
	µg/dl	34.9	26.2	43.6	
	nmol/l	1079	809	1349	Tosoh Series
	µg/dl	38.8	29.1	48.5	
	nmol/l	899	674	1124	Vitros ECI
	µg/dl	32.4	24.3	40.5	
	nmol/l	955	716	1194	Roche Cobas 6000/8000
	µg/dl	34.4	25.8	43.0	
	nmol/l	1050	788	1313	Roche Cobas E411
	µg/dl	37.8	28.4	47.2	
	nmol/l	1094	755	1433	Siemens Centaur CP
	µg/dl	39.4	27.2	51.6	
DHEA-S	nmol/l	1051	788	1314	Roche Cobas 4000/e411 Gen II
	µg/dl	37.8	28.4	47.2	
	nmol/l	972	729	1215	Roche Cobas 6000/8000 Gen II
	µg/dl	35.0	26.2	43.8	
	nmol/l	963	722	1204	Roche Elecsys Gen II
	µg/dl	34.7	26.0	43.4	
	nmol/l	1030	773	1288	Diasorin Liaison XL
	µg/dl	37.1	27.8	46.4	
	µmol/l	21.6	17.3	25.9	Abbott Architect
	µmol/l	17.3	13.8	20.8	Siemens Immulite 2000/2500
µmol/l	18.5	14.8	22.2	Siemens Immulite 1000	
µmol/l	17.5	14.0	21.0	Beckman Dxl800	
µmol/l	26.1	20.9	31.3	Roche Elecsys	
µmol/l	17.5	14.0	21.0	Beckman Access	
µmol/l	16.5	13.2	19.8	Diasorin Liaison	
µmol/l	17.8	10.7	24.9	Siemens Centaur XP/XPT/Classic	
µmol/l	26.1	20.9	31.3	Roche Cobas E411	
µmol/l	26.2	21.0	31.4	Roche Cobas 6000/8000	
µmol/l	18.4	11.0	25.8	Siemens Centaur CP	
Digoxin	nmol/l	4.24	3.39	5.09	Abbott Architect
	ng/ml	3.31	2.65	3.97	
	nmol/l	5.04	4.03	6.05	BioMerieux Vidas
	ng/ml	3.94	3.15	4.73	
	nmol/l	5.23	4.08	6.38	Siemens Centaur XP/XPT/Classic
	ng/ml	4.08	3.18	4.98	
	nmol/l	5.04	4.03	6.05	Siemens Dimension
	ng/ml	3.94	3.15	4.73	
	nmol/l	5.40	4.32	6.48	Siemens Immulite 2000/2500
	ng/ml	4.22	3.37	5.07	
nmol/l	5.96	4.77	7.15	Siemens Immulite 1000	
ng/ml	4.65	3.73	5.57		
nmol/l	4.92	3.94	5.90	Beckman Dxl800	
ng/ml	3.84	3.08	4.60		

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

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

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Range					
Analyte	unit	Target	low	high	methods
Folate	nmol/l	19.0	14.4	23.6	Beckman Access
	ng/ml	8.38	6.35	10.4	
	nmol/l	28.2	21.4	35.0	Tosoh Series
	ng/ml	12.4	9.44	15.4	
	nmol/l	11.7	8.89	14.5	Vitros ECI
	ng/ml	5.16	3.92	6.40	
	nmol/l	16.9	12.8	21.0	MP Biomedicals RIA
	ng/ml	7.45	5.64	9.26	
	nmol/l	13.0	9.88	16.1	Siemens Dimension
	ng/ml	5.73	4.36	7.10	
Free T3	pmol/l	22.9	17.2	28.6	Abbott Architect
	ng/dl	1.49	1.12	1.86	
	pg/ml	14.9	11.2	18.6	
	pmol/l	22.3	16.7	27.9	BioMerieux Vidas
	ng/dl	1.45	1.09	1.81	
	pg/ml	14.5	10.9	18.1	
	pmol/l	21.9	13.1	30.7	Siemens Centaur XP/XPT/Classic
	ng/dl	1.42	0.852	1.99	
	pg/ml	14.3	8.58	20.0	
	pmol/l	16.2	12.2	20.3	Siemens Immulite 2000/2500
	ng/dl	1.05	0.793	1.31	
	pg/ml	10.5	7.94	13.1	
	pmol/l	15.8	11.9	19.8	Siemens Immulite 1000
	ng/dl	1.03	0.774	1.29	
	pg/ml	10.3	7.75	12.9	
	pmol/l	17.4	13.1	21.8	Beckman Dxl800
	ng/dl	1.13	0.852	1.41	
	pg/ml	11.3	8.53	14.1	
	pmol/l	29.1	21.8	36.4	Roche Elecsys
	ng/dl	1.89	1.42	2.36	
	pg/ml	18.9	14.2	23.6	
	pmol/l	35.9	26.9	44.9	Diasorin Liaison
	ng/dl	2.33	1.75	2.91	
	pg/ml	23.4	17.5	29.3	
	pmol/l	19.0	14.3	23.8	Beckman Access
	ng/dl	1.24	0.930	1.55	
	pg/ml	12.4	9.31	15.5	
	pmol/l	33.3	25.0	41.6	Tosoh Series
	ng/dl	2.16	1.63	2.69	
	pg/ml	21.7	16.3	27.1	
pmol/l	35.0	26.3	43.8	Vitros ECI	
ng/dl	2.28	1.71	2.85		
pg/ml	22.8	17.1	28.5		
pmol/l	28.2	21.2	35.3	Roche Cobas E411	
ng/dl	1.83	1.38	2.28		
pg/ml	18.4	13.8	23.0		

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Analyte	unit	Target	Range		methods	
			low	high		
Free T3	pmol/l	29.3	22.0	36.6	Roche Cobas 6000/8000	
	ng/dl	1.90	1.43	2.37		
	pg/ml	19.1	14.3	23.9		
	pmol/l	21.5	12.9	30.1	Siemens Centaur CP	
		ng/dl	1.40	0.840		1.96
		pg/ml	14.0	8.40		19.6
	pmol/l	21.5	16.1	26.9	Mindray CL-2000i	
		ng/dl	1.40	1.05		1.75
		pg/ml	14.0	10.5		17.5
	pmol/l	35.9	26.9	44.9	Diasorin Liaison XL	
		ng/dl	2.33	1.75		2.91
		pg/ml	23.4	17.5		29.3
Free T4	pmol/l	41.3	31.0	51.6	Abbott Architect	
		ng/dl	3.22	2.42		4.02
		pg/ml	32.2	24.2		40.2
	pmol/l	41.3	31.0	51.6	Siemens Centaur XP/XPT/Classic	
		ng/dl	3.22	2.42		4.02
		pg/ml	32.2	24.2		40.2
	pmol/l	47.7	35.8	59.6	CIS RIA Coated tube	
		ng/dl	3.72	2.79		4.65
		pg/ml	37.2	27.9		46.5
	pmol/l	59.7	44.8	74.6	Siemens Immulite 2000/2500	
		ng/dl	4.66	3.49		5.83
		pg/ml	46.6	34.9		58.3
	pmol/l	60.1	45.1	75.1	Siemens Immulite 1000	
		ng/dl	4.69	3.52		5.86
		pg/ml	46.9	35.2		58.6
	pmol/l	48.4	36.3	60.5	Beckman Dxl800	
		ng/dl	3.78	2.83		4.73
		pg/ml	37.8	28.3		47.3
	pmol/l	60.0	45.0	75.0	Roche Elecsys	
		ng/dl	4.68	3.51		5.85
		pg/ml	46.8	35.1		58.5
	pmol/l	81.7	61.3	102	Diasorin Liaison	
		ng/dl	6.37	4.78		7.96
		pg/ml	63.7	47.8		79.6
pmol/l	45.1	33.8	56.4	Beckman Access		
	ng/dl	3.52	2.64		4.40	
	pg/ml	35.2	26.4		44.0	
pmol/l	60.4	45.3	75.5	Tosoh Series		
	ng/dl	4.71	3.53		5.89	
	pg/ml	47.1	35.3		58.9	
pmol/l	89.8	67.4	112	Vitros ECI		
	ng/dl	7.00	5.26		8.74	
	pg/ml	70.0	52.6		87.4	

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

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

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Range					
Analyte	unit	Target	low	high	methods
Growth Hormone (GH)	µU/ml	43.8	35.0	52.6	CIS IRMA
	ng/ml	14.6	11.7	17.5	
	µU/ml	43.8	35.0	52.6	Siemens Immulite 2000/2500
	ng/ml	14.6	11.7	17.5	
	µU/ml	43.5	34.8	52.2	Siemens Immulite 1000
	ng/ml	14.5	11.6	17.4	
	µU/ml	36.9	29.5	44.3	Beckman Dxl800
	ng/ml	12.3	9.82	14.8	
	µU/ml	38.3	30.6	46.0	Beckman Access
	ng/ml	12.8	10.2	15.4	
	µU/ml	45.8	36.6	55.0	Tosoh Series
	ng/ml	15.3	12.2	18.4	
	µU/ml	40.4	32.3	48.5	Diasorin Liaison
	ng/ml	13.5	10.8	16.2	
	µU/ml	41.5	33.2	49.8	Roche Cobas E411
	ng/ml	13.8	11.1	16.5	
	µU/ml	39.1	31.3	46.9	Roche Cobas 6000/8000
	ng/ml	13.0	10.4	15.6	
µU/ml	41.8	33.4	50.2	IDS iSYS	
ng/ml	13.9	11.1	16.7		
µU/ml	38.5	30.8	46.2	Diasorin Liaison XL	
ng/ml	12.8	10.3	15.3		
Immunoglobulin E	KIU/I = IU/ml	537	430	644	Abbott Architect
	KIU/I = IU/ml	493	394	592	Beckman Immage
	KIU/I = IU/ml	554	443	665	BioMerieux Vidas
	KIU/I = IU/ml	605	363	847	Siemens Centaur XP/XPT/Classic
	KIU/I = IU/ml	570	456	684	Siemens Immulite 2000/2500
	KIU/I = IU/ml	601	481	721	Siemens Immulite 1000
	KIU/I = IU/ml	574	459	689	Roche Elecsys
	KIU/I = IU/ml	549	439	659	Pharmacia Unicap
	KIU/I = IU/ml	554	443	665	Tosoh Series
	KIU/I = IU/ml	600	480	720	Roche Cobas E411
	KIU/I = IU/ml	611	489	733	Roche Cobas 6000/8000
	KIU/I = IU/ml	483	386	580	Fujirebio Lumipulse G Series
KIU/I = IU/ml	578	347	809	Siemens Centaur CP	
Insulin	mU/l	24.8	18.6	31.0	Siemens Centaur XP/XPT/Classic
	µU/ml	24.8	18.6	31.0	
	mU/l	11.6	8.70	14.5	Siemens Immulite 1000
	µU/ml	11.6	8.70	14.5	
	mU/l	11.1	8.33	13.9	Siemens Immulite 2000
	µU/ml	11.1	8.33	13.9	
	mU/l	32.9	24.7	41.1	Roche Elecsys
	µU/ml	32.9	24.7	41.1	
	mU/l	26.4	19.8	33.0	Beckman Access
	µU/ml	26.4	19.8	33.0	
mU/l	25.9	19.4	32.4	Abbott Architect	
µU/ml	25.9	19.4	32.4		

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Range					
Analyte	unit	Target	low	high	methods
Insulin	mU/l	49.7	37.3	62.1	Tosoh Series
	µU/ml	49.7	37.3	62.1	
	mU/l	33.4	25.1	41.8	Roche Cobas E411
	µU/ml	33.4	25.1	41.8	
	mU/l	25.1	18.8	31.4	Beckman Dxl 600/800
	µU/ml	25.1	18.8	31.4	
	mU/l	35.5	26.6	44.4	Diasorin Liaison
	µU/ml	35.5	26.6	44.4	
	mU/l	33.8	25.4	42.3	Roche Cobas 6000/8000
	µU/ml	33.8	25.4	42.3	
	mU/l	30.1	22.6	37.6	Fujirebio Lumipulse G Series
	µU/ml	30.1	22.6	37.6	
	mU/l	26.8	20.1	33.5	Siemens Centaur CP
	µU/ml	26.8	20.1	33.5	
Luteinising Hormone (LH)	mU/l	35.8	26.9	44.8	Diasorin Liaison XL
	µU/ml	35.8	26.9	44.8	
	mU/l	26.9	20.2	33.6	Siemens Atellica IM
	µU/ml	26.9	20.2	33.6	
	mU/ml	40.8	32.6	49.0	Abbott Architect
	mU/ml	50.6	40.5	60.7	BioMerieux Vidas
	mU/ml	46.5	35.8	57.2	Siemens Centaur XP/XPT/Classic
	mU/ml	75.7	60.6	90.8	Siemens Immulite 2000
	mU/ml	77.5	62.0	93.0	Siemens Immulite 1000
	mU/ml	38.2	30.6	45.8	Beckman Dxl800
	mU/ml	53.0	42.4	63.6	Roche Elecsys
	mU/ml	62.6	50.1	75.1	Diasorin Liaison
	mU/ml	39.2	31.4	47.0	Beckman Access
	mU/ml	45.6	36.5	54.7	Tosoh Series
mU/ml	52.8	42.2	63.4	Vitros ECi	
mU/ml	52.7	42.2	63.2	Roche Cobas E411	
mU/ml	52.4	41.9	62.9	Roche Cobas 6000/8000	
mU/ml	47.0	37.6	56.4	Fujirebio Lumipulse G Series	
mU/ml	50.5	38.9	62.1	Siemens Centaur CP	
mU/ml	56.9	45.5	68.3	Mindray CL-2000i	
mU/ml	64.6	51.7	77.5	Diasorin Liaison XL	
Oestradiol	pmol/l	1436	1149	1723	Abbott Architect
	pg/ml	391	313	469	
	pmol/l	3146	2517	3775	BioMerieux Vidas
	pg/ml	856	685	1027	
	pmol/l	2790	1730	3850	Siemens Centaur XP/XPT/Classic
	pg/ml	759	471	1047	
	pmol/l	2508	2006	3010	Siemens Immulite 2000/2500
	pg/ml	682	546	818	
pmol/l	2495	1996	2994	Siemens Immulite 1000	
pg/ml	679	543	815		

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

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

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

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

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Analyte	unit	Target	Range		methods
			low	high	
Progesterone	nmol/l	103	82.4	124	Roche Elecsys (Prog. II)
	ng/ml	32.2	25.8	38.6	
	nmol/l	100	80.0	120	Beckman Access Prog Cal 33555
	ng/ml	31.3	25.0	37.6	
	nmol/l	114	91.2	137	Tosoh Series
	ng/ml	35.7	28.5	42.9	
	nmol/l	107	85.6	128	Vitros ECI
	ng/ml	33.5	26.8	40.2	
	nmol/l	103	82.4	124	Roche Cobas 4000/e411 (Prog. II)
	ng/ml	32.2	25.8	38.6	
	nmol/l	106	84.8	127	Roche Cobas 6000/8000 (Prog. II)
	ng/ml	33.2	26.5	39.9	
	nmol/l	86.6	69.3	104	Diasorin Liaison
	ng/ml	27.1	21.7	32.5	
	nmol/l	99.0	79.2	119	Beckman Dxl Prog DE Cal A80773
	ng/ml	31.0	24.8	37.2	
	nmol/l	101	80.8	121	Beckman Access Prog DE Cal A80773
	ng/ml	31.6	25.3	37.9	
	nmol/l	77.5	55.0	100	Siemens Centaur CP
	ng/ml	24.3	17.3	31.3	
nmol/l	106	84.8	127	Mindray CL-2000i	
ng/ml	33.2	26.5	39.9		
nmol/l	103	82.4	124	Fujirebio Lumipulse G Series	
ng/ml	32.2	25.8	38.6		
nmol/l	105	84.0	126	Roche Cobas 6000/8000 (Prog. III)	
ng/ml	32.9	26.3	39.5		
nmol/l	104	83.2	125	Roche Elecsys (Prog. III)	
ng/ml	32.6	26.0	39.2		
nmol/l	104	83.2	125	Roche Cobas 4000/e411 (Prog. III)	
ng/ml	32.6	26.0	39.2		
Prolactin	µU/ml	1108	886	1330	Abbott Architect
	µU/ml	1290	1032	1548	BioMerieux Vidas
	µU/ml	914	686	1142	Siemens Centaur XP/XPT/Classic
	µU/ml	948	758	1138	Siemens Immulite 2000/2500
	µU/ml	1003	802	1204	Siemens Immulite 1000
	µU/ml	856	685	1027	Beckman Dxl800
	µU/ml	1029	823	1235	Roche Elecsys
	µU/ml	1100	880	1320	Diasorin Liaison
	µU/ml	879	703	1055	Beckman Access
	µU/ml	1005	804	1206	Tosoh Series
	µU/ml	917	734	1100	Vitros ECI
	µU/ml	1024	819	1229	Roche Elecsys/E170/Cobas 6000/8000 PRLII
	µU/ml	1011	809	1213	Immunotech IRMA
	µU/ml	1061	849	1273	Roche Cobas E411
	µU/ml	1019	815	1223	Roche Cobas 6000/8000
	µU/ml	1243	994	1492	Fujirebio Lumipulse G Series

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Range					
Analyte	unit	Target	low	high	methods
Prolactin	µU/ml	943	707	1179	Siemens Centaur CP
	µU/ml	1230	984	1476	Mindray CL-2000i
	µU/ml	1146	917	1375	Diasorin Liaison XL
PSA Free	ng/ml = µg/l	28.5	21.4	35.6	Abbott Architect
	ng/ml = µg/l	21.1	15.8	26.4	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	22.4	16.8	28.0	Siemens Immulite 2000/2500
	ng/ml = µg/l	19.2	14.4	24.0	Siemens Immulite 1000
	ng/ml = µg/l	25.1	18.8	31.4	Beckman DXI standardised to Hybritech
	ng/ml = µg/l	17.1	12.8	21.4	Roche Elecsys
	ng/ml = µg/l	13.9	10.4	17.4	Diasorin Liaison
	ng/ml = µg/l	25.7	19.3	32.1	Beckman Access standardised to Hybritech
	ng/ml = µg/l	16.6	12.5	20.8	Tosoh Series
	ng/ml = µg/l	17.3	13.0	21.6	Roche Cobas E411
	ng/ml = µg/l	17.2	12.9	21.5	Roche Cobas 6000/8000
	ng/ml = µg/l	25.3	19.0	31.6	Beckman Dxl800 standardised to WHO IRP96/670
	ng/ml = µg/l	29.0	21.8	36.3	Beckman Access standardised to WHO IRP96/670
	ng/ml = µg/l	9.02	6.77	11.3	Ortho Vitros 3600/5600/ECi PSA II
ng/ml = µg/l	18.5	13.9	23.1	Fujirebio Lumipulse G Series	
ng/ml = µg/l	12.9	9.68	16.1	Diasorin Liaison XL	
PSA Total	ng/ml = µg/l	27.2	20.4	34.0	Abbott Architect
	ng/ml = µg/l	31.7	23.8	39.6	BioMerieux Vidas
	ng/ml = µg/l	31.4	23.6	39.3	bioMerieux VIDAS TPSA
	ng/ml = µg/l	31.2	23.4	39.0	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	13.2	9.90	16.5	Siemens Immulite 2000/2500 1st generation
	ng/ml = µg/l	12.2	9.15	15.3	Siemens Immulite 2000/2500 3rd generation
	ng/ml = µg/l	13.6	10.2	17.0	Siemens Immulite 1000 1st generation
	ng/ml = µg/l	39.3	29.5	49.1	Beckman Dxl standardised to Hybritech
	ng/ml = µg/l	34.3	25.7	42.9	Beckman Dxl800 standardised to WHO IRP96/670
	ng/ml = µg/l	36.8	27.6	46.0	Roche Elecsys
	ng/ml = µg/l	19.2	14.4	24.0	Diasorin Liaison
	ng/ml = µg/l	40.0	30.0	50.0	Beckman Access standardised to Hybritech
	ng/ml = µg/l	40.0	30.0	50.0	Beckman Access standardised to WHO IRP96/670
	ng/ml = µg/l	23.2	17.4	29.0	Tosoh Series
	ng/ml = µg/l	36.1	27.1	45.1	Vitros ECi
	ng/ml = µg/l	34.6	26.0	43.3	CIS RIA Coated tube
	ng/ml = µg/l	36.6	27.5	45.8	Roche Cobas E411
	ng/ml = µg/l	36.4	27.3	45.5	Roche Cobas 6000/8000
	ng/ml = µg/l	25.1	18.8	31.4	Fujirebio Lumipulse G Series
	ng/ml = µg/l	36.5	27.4	45.6	Ortho Vitros 3600/5600/ECi PSA II
ng/ml = µg/l	32.2	24.2	40.2	Siemens Centaur CP	
ng/ml = µg/l	20.4	15.3	25.5	Diasorin Liaison XL	
Salicylic Acid	mmol/l	2.73	2.18	3.28	Roche Integra
	mg/dl	37.7	30.1	45.3	
	mmol/l	2.90	2.32	3.48	Abbott Architect
	mg/dl	40.1	32.0	48.2	
	mmol/l	2.88	2.30	3.46	Gravimetric
mg/dl	39.8	31.8	47.8		

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Range					
Analyte	unit	Target	low	high	methods
SHBG	nmol/l	38.6	30.9	46.3	Siemens Immulite 1000
	nmol/l	44.3	35.4	53.2	Siemens Immulite 2000/2500
	nmol/l	45.6	36.5	54.7	Roche Elecsys
	nmol/l	42.6	34.1	51.1	Abbott Architect
	nmol/l	44.5	35.6	53.4	Roche Cobas E411
	nmol/l	44.5	35.6	53.4	Roche Cobas 6000/8000
	nmol/l	43.7	35.0	52.4	Beckman Access
	nmol/l	41.6	33.3	49.9	Beckman Dxl800
T Uptake	%U	38.7	31.0	46.4	Siemens Immulite 2000
Testosterone	nmol/l	27.7	22.2	33.2	Abbott Architect
	ng/ml	7.98	6.39	9.57	
	ng/dl	798	639	957	
	nmol/l	22.3	17.8	26.8	BioMerieux Vidas
	ng/ml	6.42	5.13	7.71	
	ng/dl	642	513	771	
	nmol/l	23.8	17.4	30.2	Siemens Centaur XP/XPT/Classic
	ng/ml	6.85	5.00	8.70	
	ng/dl	685	500	870	
	nmol/l	32.9	26.3	39.5	Siemens Immulite 2000/2500
	ng/ml	9.48	7.57	11.4	
	ng/dl	948	757	1139	
	nmol/l	47.3	37.8	56.8	Siemens Immulite 1000
	ng/ml	13.6	10.9	16.3	
	ng/dl	1362	1089	1635	
	nmol/l	23.2	18.6	27.8	Beckman Dxl800
	ng/ml	6.68	5.36	8.00	
	ng/dl	668	536	800	
	nmol/l	25.9	20.7	31.1	Beckman Access
	ng/ml	7.46	5.96	8.96	
	ng/dl	746	596	896	
	nmol/l	40.1	32.1	48.1	Tosoh Series
	ng/ml	11.5	9.24	13.8	
	ng/dl	1155	924	1386	
nmol/l	40.2	32.2	48.2	Vitros ECi	
ng/ml	11.6	9.27	13.9		
ng/dl	1158	927	1389		
nmol/l	28.6	22.9	34.3	Roche Cobas 6000 Test 2	
ng/ml	8.24	6.60	9.88		
ng/dl	824	660	988		
nmol/l	28.5	22.8	34.2	Roche Elecsys Test II	
ng/ml	8.21	6.57	9.85		
ng/dl	821	657	985		
nmol/l	28.2	22.6	33.8	Roche Cobas 4000/e411 Test II	
ng/ml	8.12	6.51	9.73		
ng/dl	812	651	973		

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Analyte	unit	Target	Range		methods
			low	high	
Testosterone	nmol/l	27.8	22.2	33.4	Abbott Architect 2nd Generation
	ng/ml	8.01	6.39	9.63	
	ng/dl	801	639	963	
	nmol/l	23.0	16.8	29.2	Siemens Centaur CP
	ng/ml	6.62	4.83	8.41	
	ng/dl	662	483	841	
	nmol/l	22.5	18.0	27.0	BioMerieux Vidas Testosterone II
	ng/ml	6.48	5.18	7.78	
	ng/dl	648	518	778	
	nmol/l	39.6	31.7	47.5	Mindray CL-2000i
	ng/ml	11.4	9.13	13.7	
	ng/dl	1140	913	1367	
nmol/l	24.8	18.1	31.5	Siemens Centaur TST II	
ng/ml	7.14	5.21	9.07		
ng/dl	714	521	907		
nmol/l	12.0	9.60	14.4	Diasorin Liaison XL	
ng/ml	3.46	2.76	4.16		
ng/dl	346	276	416		
Theophylline	µmol/l	148	118	178	Siemens Centaur XP/XPT/Classic
	µg/ml	26.7	21.4	32.0	
	µmol/l	165	132	198	Roche Integra
	µg/ml	29.7	23.8	35.6	
	µmol/l	206	165	247	Vitros
	µg/ml	37.1	29.7	44.5	
	µmol/l	144	115	173	Abbott Architect
	µg/ml	25.9	20.7	31.1	
	µmol/l	157	126	188	Roche Cobas 6000/8000
	µg/ml	28.3	22.7	33.9	
	µmol/l	158	126	190	Beckman DxC
	µg/ml	28.5	22.7	34.3	
µmol/l	145	116	174	Beckman AU400/600/640/2700/5400	
µg/ml	26.1	20.9	31.3		
µmol/l	166	133	199	Gravimetric	
µg/ml	29.9	24.0	35.9		
Thyroglobulin	ng/ml	22.3	16.7	27.9	Siemens Immulite 1000
	ng/ml	26.5	19.9	33.1	Siemens Immulite 2000
	ng/ml	59.3	44.5	74.1	Roche Elecsys
	ng/ml	50.1	37.6	62.6	Beckman Dxl800
	ng/ml	58.1	43.6	72.6	Roche Cobas E411
	ng/ml	57.6	43.2	72.0	Roche Cobas 6000/8000
	ng/ml	52.4	39.3	65.5	Beckman Access
	ng/ml	57.8	43.4	72.3	Abbott Architect 2000i
	ng/ml	53.2	39.9	66.5	Tosoh Series
	ng/ml	57.3	43.0	71.6	Roche Cobas 6000 TGII
	ng/ml	55.3	41.5	69.1	Roche Elecsys TGII
	ng/ml	57.9	43.4	72.4	Roche Cobas 4000/E411 TGII

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Range					
Analyte	unit	Target	low	high	methods
Thyroglobulin	ng/ml	27.3	20.5	34.1	Diasorin Liaison XL
Thyroid Stimulating Hormone	µU/ml = mIU/l	17.5	14.0	21.0	Abbott Architect
	µU/ml = mIU/l	21.5	17.2	25.8	bioMerieux VIDAS TSH
	µU/ml = mIU/l	20.9	16.7	25.1	bioMerieux VIDAS TSH3 Ultrasensitive
	µU/ml = mIU/l	22.5	15.3	29.7	Siemens Centaur XP/XPT/Classic
	µU/ml = mIU/l	22.4	17.9	26.9	CIS IRMA
	µU/ml = mIU/l	21.8	14.8	28.8	Siemens Centaur XP/XPT/Classic 3rd Generation
	µU/ml = mIU/l	20.5	16.4	24.6	Siemens Dimension
	µU/ml = mIU/l	21.6	17.3	25.9	Siemens Immulite 2000/2500
	µU/ml = mIU/l	22.0	17.6	26.4	Siemens Immulite 1000
	µU/ml = mIU/l	19.4	15.5	23.3	Beckman Dxl800 Fast TSH
	µU/ml = mIU/l	19.0	15.2	22.8	Beckman Dxl800
	µU/ml = mIU/l	20.3	16.2	24.4	Roche Elecsys
	µU/ml = mIU/l	25.9	20.7	31.1	Diasorin Liaison
	µU/ml = mIU/l	18.8	15.0	22.6	Beckman Access Fast TSH
	µU/ml = mIU/l	19.4	15.5	23.3	Beckman Access hyperTSH 3rd Generation
	µU/ml = mIU/l	22.5	18.0	27.0	Tosoh Series
	µU/ml = mIU/l	28.5	22.8	34.2	Vitros ECi
	µU/ml = mIU/l	20.6	16.5	24.7	Roche Cobas E411
	µU/ml = mIU/l	20.7	16.6	24.8	Roche Cobas 6000/8000
	µU/ml = mIU/l	18.7	15.0	22.4	Beckman Dxl800 Hyper TSH
µU/ml = mIU/l	22.6	15.4	29.8	Siemens Centaur XP/XPT/Classic TSH3-Ultra	
µU/ml = mIU/l	21.3	14.5	28.1	Siemens Centaur CP	
µU/ml = mIU/l	22.7	15.4	30.0	Siemens Centaur CP TSH3-Ultra	
µU/ml = mIU/l	25.9	20.7	31.1	Mindray CL-2000i	
µU/ml = mIU/l	19.0	15.2	22.8	Beckman Dxl 600/800 Access (3rd IS)	
µU/ml = mIU/l	26.4	21.1	31.7	Diasorin Liaison XL	
Tobramycin	µmol/l	10.3	8.24	12.4	Gravimetric
	µg/ml	4.82	3.86	5.80	
Total Beta hCG	mU/ml=IU/l	159	127	191	Abbott Architect
	IU/ml	0.159	0.127	0.191	
	mU/ml=IU/l	692	554	830	BioMerieux Vidas
	IU/ml	0.692	0.554	0.830	
	mU/ml=IU/l	118	70.8	165	Siemens Centaur XP/XPT/Classic
	IU/ml	0.118	0.071	0.165	
	mU/ml=IU/l	783	626	940	Siemens Dimension
	IU/ml	0.783	0.626	0.940	
	mU/ml=IU/l	1076	861	1291	Siemens Immulite 2000
	IU/ml	1.08	0.861	1.30	
	mU/ml=IU/l	950	760	1140	Siemens Immulite 1000
	IU/ml	0.950	0.760	1.14	
	mU/ml=IU/l	146	117	175	Beckman Dxl800
	IU/ml	0.146	0.117	0.175	
	mU/ml=IU/l	158	126	190	Diasorin Liaison
	IU/ml	0.158	0.126	0.190	
mU/ml=IU/l	358	286	430	Roche Cobas Core EIA	
IU/ml	0.358	0.286	0.430		

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Analyte	unit	Target	Range		methods
			low	high	
Total Beta hCG	mU/ml=IU/l	135	108	162	Beckman Access
	IU/ml	0.135	0.108	0.162	
	mU/ml=IU/l	687	550	824	Tosoh Series
	IU/ml	0.687	0.550	0.824	
	mU/ml=IU/l	733	586	880	Vitros Eci
	IU/ml	0.733	0.586	0.880	
	mU/ml=IU/l	248	198	298	Roche STAT (Intact)
	IU/ml	0.248	0.198	0.298	
	mU/ml=IU/l	361	289	433	Roche hCG+Beta
	IU/ml	0.361	0.289	0.433	
	mU/ml=IU/l	129	103	155	Fujirebio Lumipulse G Series
	IU/ml	0.129	0.103	0.155	
	mU/ml=IU/l	141	113	169	Beckman Access Total BhCG (5th IS)
	IU/ml	0.141	0.113	0.169	
	mU/ml=IU/l	146	117	175	Beckman Dxl Total BhCG (5th IS)
	IU/ml	0.146	0.117	0.175	
mU/ml=IU/l	118	70.8	165	Siemens Centaur CP	
IU/ml	0.118	0.071	0.165		
mU/ml=IU/l	168	134	202	Diasorin Liaison XL	
IU/ml	0.168	0.134	0.202		
Total T3	nmol/l	5.23	3.92	6.54	Abbott Architect
	ng/ml	3.40	2.55	4.25	
	ng/dl	340	255	425	
	nmol/l	6.04	4.53	7.55	BioMerieux Vidas
	ng/ml	3.93	2.95	4.91	
	ng/dl	393	295	491	
	nmol/l	7.09	5.32	8.86	Siemens Centaur XP/XPT/Classic
	ng/ml	4.62	3.47	5.77	
	ng/dl	462	347	577	
	nmol/l	6.75	5.06	8.44	Siemens Immulite 2000/2500
	ng/ml	4.39	3.29	5.49	
	ng/dl	439	329	549	
	nmol/l	6.95	5.21	8.69	Siemens Immulite 1000
	ng/ml	4.52	3.39	5.65	
	ng/dl	452	339	565	
	nmol/l	5.94	4.46	7.43	Beckman Dxl800
	ng/ml	3.87	2.90	4.84	
	ng/dl	387	290	484	
	nmol/l	7.02	5.27	8.78	Roche Elecsys
	ng/ml	4.57	3.43	5.71	
	ng/dl	457	343	571	
	nmol/l	6.09	4.57	7.61	Beckman Access
	ng/ml	3.96	2.98	4.94	
	ng/dl	396	298	494	
nmol/l	6.23	4.67	7.79	Tosoh Series	
ng/ml	4.06	3.04	5.08		
ng/dl	406	304	508		

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Analyte	unit	Target	Range		methods
			low	high	
Total T3	nmol/l	7.20	5.40	9.00	Vitros ECI
	ng/ml	4.69	3.52	5.86	
	ng/dl	469	352	586	
	nmol/l	4.99	3.74	6.24	CIS RIA Coated tube
	ng/ml	3.25	2.43	4.07	
	ng/dl	325	243	407	
	nmol/l	6.90	5.18	8.63	Roche Cobas E411
	ng/ml	4.49	3.37	5.61	
	ng/dl	449	337	561	
	nmol/l	6.42	4.82	8.03	Roche Cobas 6000/8000
	ng/ml	4.18	3.14	5.22	
	ng/dl	418	314	522	
	nmol/l	6.07	4.55	7.59	ELISA
	ng/ml	3.95	2.96	4.94	
	ng/dl	395	296	494	
nmol/l	7.67	5.75	9.59	Siemens Centaur CP	
ng/ml	4.99	3.74	6.24		
ng/dl	499	374	624		
nmol/l	4.99	3.74	6.24	Diasorin Liaison XL	
ng/ml	3.25	2.43	4.07		
ng/dl	325	243	407		
Total T4	nmol/l	169	127	211	Abbott Architect
	µg/dl	13.2	9.91	16.5	
	ng/ml	132	99.1	165	
	nmol/l	201	151	251	BioMerieux Vidas
	µg/dl	15.7	11.8	19.6	
	ng/ml	157	118	196	
	nmol/l	189	132	246	Siemens Centaur XP/XPT/Classic
	µg/dl	14.7	10.3	19.1	
	ng/ml	147	103	191	
	nmol/l	178	134	223	Siemens Immulite 2000/2500
	µg/dl	13.9	10.5	17.3	
	ng/ml	139	105	173	
	nmol/l	179	134	224	Siemens Immulite 1000
	µg/dl	14.0	10.5	17.5	
	ng/ml	140	105	175	
	nmol/l	179	134	224	Beckman Dxl800
	µg/dl	14.0	10.5	17.5	
	ng/ml	140	105	175	
nmol/l	168	126	210	Roche Elecsys	
µg/dl	13.1	9.83	16.4		
ng/ml	131	98.3	164		
nmol/l	182	137	228	Beckman Access	
µg/dl	14.2	10.7	17.7		
ng/ml	142	107	177		

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

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

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

Range						
Analyte	unit	Target	low	high	methods	
Valproic Acid	µmol/l	997	798	1196	Roche Cobas E411	
	µg/ml	144	115	173		
	µmol/l	948	758	1138	Roche Cobas 6000/8000	
	µg/ml	137	109	165		
	µmol/l	869	695	1043	Beckman DxC	
	µg/ml	125	100	150		
	µmol/l	946	757	1135	Beckman AU400/600/640/2700/5400	
	µg/ml	137	109	165		
Vancomycin	µmol/l	1069	855	1283	Siemens ADVIA 1200/1650/1800/2400	
	µg/ml	154	123	185		
	µmol/l	1116	893	1339	Gravimetric	
	µg/ml	161	129	193		
	Vancomycin	µmol/l	11.1	8.88	13.3	Roche Integra
		µg/ml	16.5	13.2	19.8	
		µmol/l	9.36	7.49	11.2	Ortho Vitros Microslide Systems
		µg/ml	13.9	11.1	16.7	
		µmol/l	10.9	8.72	13.1	Abbott Architect
		µg/ml	16.2	13.0	19.4	
		µmol/l	8.98	7.18	10.8	Siemens Centaur XP/XPT/Classic
		µg/ml	13.3	10.6	16.0	
µmol/l		9.94	7.95	11.9	Siemens Dimension	
µg/ml		14.8	11.8	17.8		
Vancomycin	µmol/l	9.91	7.93	11.9	Roche Cobas 6000/8000	
	µg/ml	14.7	11.8	17.6		
	µmol/l	9.89	7.91	11.9	Beckman DxC	
	µg/ml	14.7	11.8	17.6		
	µmol/l	10.4	8.32	12.5	Thermo Scientific QMS Vancomycin	
	µg/ml	15.5	12.4	18.6		
	µmol/l	10.8	8.64	13.0	Gravimetric	
	µg/ml	16.0	12.8	19.3		
	Vitamin B12	pmol/l	710	568	852	Abbott Architect
		pg/ml	962	770	1154	
pmol/l		852	639	1065	Siemens Centaur XP/XPT/Classic	
pg/ml		1154	866	1442		
pmol/l		647	518	776	Siemens Immulite 2000	
pg/ml		877	702	1052		
pmol/l		643	514	772	Beckman Dxl800	
pg/ml		871	696	1046		
pmol/l		747	598	896	Roche Elecsys	
pg/ml		1012	810	1214		
Vitamin B12	pmol/l	659	527	791	Beckman Access	
	pg/ml	893	714	1072		
	pmol/l	866	693	1039	Tosoh Series	
	pg/ml	1173	939	1407		
	pmol/l	632	506	758	Vitros ECi	
	pg/ml	856	686	1026		

IMMUNOASSAY PREMIUM PLUS LEVEL 3 (IA PREMIUM PLUS 3)

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

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