

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. 1908EC	EXPIRY: 2022-05-28	

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.

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IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods
			low	high	
17-OH-Progesterone	nmol/l	3.69	2.77	4.61	DIAsource RIA
	ng/ml	1.22	0.917	1.52	
25-OH Vitamin D	nmol/l	42.8	32.1	53.5	Diasorin Liaison
	nmol/l	28.6	21.5	35.8	Siemens Centaur XP/XPT/Classic
	nmol/l	21.5	16.1	26.9	Roche Vitamin D Total
	nmol/l	22.2	16.7	27.8	Abbott Architect
	nmol/l	112	84.0	140	Vitros ECI
	nmol/l	20.7	15.5	25.9	Tosoh Series
	nmol/l	28.6	21.5	35.8	BioMerieux Vidas
	nmol/l	39.4	29.6	49.3	Beckman Dxl 600/800
	nmol/l	40.7	30.5	50.9	Diasorin Liaison XL
	nmol/l	21.1	15.8	26.4	Roche Vitamin D Total II
ACTH	pmol/l	1.61	1.21	2.01	Roche Cobas E411
	pg/ml	7.32	5.50	9.14	
	pmol/l	1.70	1.28	2.13	Roche Cobas 6000/8000
	pg/ml	7.73	5.82	9.64	
	pmol/l	7.43	5.57	9.29	CIS IRMA
pg/ml	33.8	25.3	42.3		
Alpha-fetoprotein	KIU/l = IU/ml	8.32	6.66	9.98	Abbott AFP-EIA
	ng/ml	10.1	8.06	12.1	
	KIU/l = IU/ml	8.17	6.54	9.80	Abbott Architect
	ng/ml	9.89	7.91	11.9	
	KIU/l = IU/ml	8.67	6.94	10.4	BioMerieux Vidas
	ng/ml	10.5	8.40	12.6	
	KIU/l = IU/ml	9.78	7.73	11.8	Siemens Centaur XP/XPT/Classic
	ng/ml	11.8	9.32	14.3	
	KIU/l = IU/ml	8.87	7.10	10.6	Siemens Immulite 2000/2500
	ng/ml	10.7	8.59	12.8	
	KIU/l = IU/ml	8.66	6.93	10.4	Siemens Immulite 1000
	ng/ml	10.5	8.39	12.6	
	KIU/l = IU/ml	8.29	6.63	9.95	Beckman Dxl800
	ng/ml	10.0	8.02	12.0	
	KIU/l = IU/ml	9.33	7.46	11.2	Roche Elecsys
	ng/ml	11.3	9.03	13.6	
	KIU/l = IU/ml	9.99	7.99	12.0	Diasorin Liaison
	ng/ml	12.1	9.67	14.5	
	KIU/l = IU/ml	8.54	6.83	10.2	Beckman Access
	ng/ml	10.3	8.26	12.3	
KIU/l = IU/ml	8.67	6.94	10.4	Tosoh Series	
ng/ml	10.5	8.40	12.6		
KIU/l = IU/ml	8.93	7.14	10.7	Vitros ECI	
ng/ml	9.29	7.43	11.2		

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods
			low	high	
Alpha-fetoprotein	KIU/l = IU/ml	9.36	7.49	11.2	Roche Cobas 6000/8000
	ng/ml	11.3	9.06	13.5	
	KIU/l = IU/ml	16.8	13.4	20.2	CIS IRMA
	ng/ml	20.3	16.2	24.4	
	KIU/l = IU/ml	9.08	7.26	10.9	Roche Cobas E411
	ng/ml	11.0	8.78	13.2	
	KIU/l = IU/ml	9.55	7.64	11.5	Fujirebio Lumipulse G Series
	ng/ml	11.6	9.24	14.0	
	KIU/l = IU/ml	8.77	7.02	10.5	Siemens Dimension
	ng/ml	10.6	8.49	12.7	
	KIU/l = IU/ml	9.26	7.32	11.2	Siemens Centaur CP
	ng/ml	11.2	8.85	13.6	
	KIU/l = IU/ml	9.99	7.99	12.0	Diasorin Liaison XL
	ng/ml	12.1	9.67	14.5	
Amikacin	µmol/l	6.49	5.19	7.79	Roche Cobas 6000/8000
	µg/ml	3.80	3.04	4.56	
	µmol/l	6.40	5.12	7.68	Gravimetric
	µg/ml	3.75	3.00	4.50	
Androstenedione	nmol/l	5.34	4.01	6.68	Siemens Immulite 2000
	ng/ml	1.53	1.15	1.91	
	nmol/l	5.28	3.96	6.60	Diasorin Liaison XL
	ng/ml	1.52	1.14	1.90	
Beta-2-microglobulin	µg/ml = mg/l	1.01	0.808	1.21	Abbott Architect
	µg/ml = mg/l	1.08	0.864	1.30	BioMerieux Vidas
	µg/ml = mg/l	0.963	0.770	1.16	Behring Nephelometer
	µg/ml = mg/l	0.968	0.774	1.16	Siemens Immulite 2000/2500
	µg/ml = mg/l	1.13	0.904	1.36	Siemens Immulite 1000
	µg/ml = mg/l	1.14	0.912	1.37	Roche Cobas 6000/8000
	µg/ml = mg/l	0.842	0.674	1.01	Fujirebio Lumipulse G Series
	µg/ml = mg/l	0.704	0.563	0.845	Diasorin Liaison XL
C-Peptide	nmol/l	0.480	0.360	0.600	Siemens Immulite 2000/2500
	ng/ml	1.45	1.09	1.81	
	nmol/l	0.668	0.501	0.835	Roche Cobas 6000/8000
	ng/ml	2.02	1.51	2.53	
	nmol/l	0.464	0.348	0.580	Siemens Immulite 1000
	ng/ml	1.40	1.05	1.75	
	nmol/l	0.675	0.506	0.844	Diasorin Liaison
	ng/ml	2.04	1.53	2.55	
	nmol/l	0.662	0.497	0.828	Roche Cobas E411
	ng/ml	2.00	1.50	2.50	
	nmol/l	0.551	0.413	0.689	Abbott Architect
	ng/ml	1.66	1.25	2.07	
nmol/l	0.426	0.298	0.554	Siemens Centaur XP/XPT/Classic	
ng/ml	1.29	0.903	1.68		
nmol/l	0.572	0.429	0.715	Tosoh Series	
ng/ml	1.73	1.30	2.16		

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Analyte	unit	Target	Range		methods
			low	high	
C-Peptide	nmol/l	0.542	0.407	0.678	Fujirebio Lumipulse G Series
	ng/ml	1.64	1.23	2.05	
	nmol/l	0.736	0.552	0.920	Diasorin Liaison XL
	ng/ml	2.22	1.67	2.77	
CA 15-3	U/ml	20.3	16.2	24.4	Abbott Architect
	U/ml	19.6	15.7	23.5	BioMerieux Vidas
	U/ml	19.8	13.1	26.5	Siemens Centaur XP/XPT/Classic
	U/ml	18.4	14.7	22.1	Siemens Immulite 2000/2500
	U/ml	22.0	17.6	26.4	Siemens Immulite 1000
	U/ml	8.24	6.59	9.89	Beckman Dxl800
	U/ml	20.1	16.1	24.1	Roche Elecsys
	U/ml	21.4	17.1	25.7	Diasorin Liaison
	U/ml	8.58	6.86	10.3	Beckman Access
	U/ml	18.5	14.8	22.2	Tosoh Series
	U/ml	17.2	13.8	20.6	Vitros ECi
	U/ml	20.6	16.5	24.7	Roche Cobas 6000/8000
	U/ml	20.6	16.5	24.7	Roche Cobas E411
	U/ml	25.1	20.1	30.1	Fujirebio Lumipulse G Series
	U/ml	21.8	14.4	29.2	Siemens Centaur CP
	U/ml	9.88	7.90	11.9	Mindray CL-2000i
CA 19-9	U/ml	23.1	18.5	27.7	BioMerieux Vidas
	U/ml	29.9	19.7	40.1	Siemens Centaur XP/XPT/Classic
	U/ml	18.4	14.7	22.1	Siemens Immulite 2000/2500
	U/ml	19.6	15.7	23.5	Siemens Immulite 1000
	U/ml	20.2	16.2	24.2	Beckman Dxl800
	U/ml	19.2	15.4	23.0	Roche Elecsys
	U/ml	29.4	23.5	35.3	Diasorin Liaison
	U/ml	22.5	18.0	27.0	Beckman Access
	U/ml	18.5	14.8	22.2	Tosoh Series
	U/ml	35.6	28.5	42.7	Vitros ECi
	U/ml	57.4	45.9	68.9	Abbott Architect XR/XR2 kit
	U/ml	20.3	16.2	24.4	Roche Cobas 6000/8000
	U/ml	20.0	16.0	24.0	Roche Cobas E411
	U/ml	31.4	25.1	37.7	Fujirebio Lumipulse G Series
	U/ml	32.9	21.7	44.1	Siemens Centaur CP
	U/ml	17.1	13.7	20.5	Mindray CL-2000i
U/ml	28.9	23.1	34.7	Diasorin Liaison XL	
CA125	U/ml	27.9	22.3	33.5	Abbott Architect
	U/ml	19.2	15.4	23.0	BioMerieux Vidas
	U/ml	19.1	12.6	25.6	Siemens Centaur XP/XPT/Classic OV Kit
	U/ml	19.3	12.7	25.9	Siemens Centaur XP/XPT/Classic CA125 II kit
	U/ml	17.5	14.0	21.0	Siemens Immulite 2000/2500
	U/ml	17.2	13.8	20.6	Siemens Immulite 1000
	U/ml	16.6	13.3	19.9	Beckman Dxl800
U/ml	19.4	15.5	23.3	Roche Elecsys	

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Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods
			low	high	
CA125	U/ml	21.5	17.2	25.8	Diasorin Liaison
	U/ml	16.9	13.5	20.3	Beckman Access
	U/ml	38.4	30.7	46.1	Tosoh Series
	U/ml	17.4	13.9	20.9	Vitros ECI
	U/ml	19.7	15.8	23.6	Roche Cobas E411
	U/ml	19.0	15.2	22.8	Roche Cobas 6000/8000
	U/ml	18.2	14.6	21.8	Fujirebio Lumipulse G Series
	U/ml	20.6	13.6	27.6	Siemens Centaur CP CA125 II kit
	U/ml	38.7	31.0	46.4	Mindray CL-2000i
	U/ml	23.7	19.0	28.4	Diasorin Liaison XL
Carbamazepine	µmol/l	15.1	12.1	18.1	Abbott Architect
	µg/ml	3.57	2.86	4.28	
	µmol/l	17.5	12.6	22.4	Siemens Centaur XP/XPT/Classic
	µg/ml	4.14	2.98	5.30	
	µmol/l	13.3	10.6	16.0	Siemens Dimension
	µg/ml	3.14	2.51	3.77	
	µmol/l	12.3	9.84	14.8	Siemens Immulite 2000/2500
	µg/ml	2.91	2.33	3.49	
	µmol/l	12.2	9.76	14.6	Siemens Immulite 1000
	µg/ml	2.88	2.31	3.45	
	µmol/l	15.5	12.4	18.6	Roche Integra
	µg/ml	3.66	2.93	4.39	
	µmol/l	13.9	11.1	16.7	Roche Cobas 6000/8000
	µg/ml	3.29	2.62	3.96	
	µmol/l	13.7	11.0	16.4	Beckman DxC
	µg/ml	3.24	2.60	3.88	
µmol/l	15.5	12.4	18.6	Beckman AU400/600/640/2700/5400	
µg/ml	3.66	2.93	4.39		
µmol/l	17.3	13.8	20.8	Siemens ADVIA 1200/1650/1800/2400	
µg/ml	4.09	3.26	4.92		
µmol/l	15.4	12.3	18.5	Gravimetric	
µg/ml	3.64	2.91	4.37		
Carcinoembryonic Antigen (CEA)	ng/ml = µg/l	4.28	3.42	5.14	Abbott Architect
	ng/ml = µg/l	3.56	2.85	4.27	BioMerieux Vidas
	ng/ml = µg/l	3.83	2.53	5.13	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	3.56	2.85	4.27	CIS RIA Coated tube
	ng/ml = µg/l	4.51	3.61	5.41	Siemens Immulite 2000/2500
	ng/ml = µg/l	4.90	3.92	5.88	Siemens Immulite 1000
	ng/ml = µg/l	3.85	3.08	4.62	Beckman Dxl800
	ng/ml = µg/l	3.82	3.06	4.58	Roche Elecsys
	ng/ml = µg/l	3.92	3.14	4.70	Diasorin Liaison
	ng/ml = µg/l	3.98	3.18	4.78	Beckman Access
	ng/ml = µg/l	5.14	4.11	6.17	Tosoh Series
	ng/ml = µg/l	3.87	3.10	4.64	Vitros ECI
	ng/ml = µg/l	3.82	3.06	4.58	Roche Cobas 6000/8000
	ng/ml = µg/l	3.81	3.05	4.57	Roche Cobas E411

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods
			low	high	
Carcinoembryonic Antigen (CEA)	ng/ml = µg/l	5.29	4.23	6.35	Fujirebio Lumipulse G Series
	ng/ml = µg/l	3.84	2.53	5.15	Siemens Centaur CP
	ng/ml = µg/l	3.43	2.74	4.12	Mindray CL-2000i
	ng/ml = µg/l	3.88	3.10	4.66	Diasorin Liaison XL
Cortisol	nmol/l	197	148	246	Abbott Architect
	µg/dl	7.09	5.33	8.85	
	nmol/l	110	82.5	138	BioMerieux Vidas
	µg/dl	3.96	2.97	4.95	
	nmol/l	176	116	236	Siemens Centaur XP/XPT/Classic
	µg/dl	6.34	4.18	8.50	
	nmol/l	173	130	216	CIS RIA
	µg/dl	6.23	4.68	7.78	
	nmol/l	189	142	236	Siemens Immulite 2000/2500
	µg/dl	6.80	5.11	8.49	
	nmol/l	189	142	236	Siemens Immulite 1000
	µg/dl	6.80	5.11	8.49	
	nmol/l	183	137	229	Beckman Dxl800
	µg/dl	6.59	4.93	8.25	
	nmol/l	177	133	221	Roche Elecsys
	µg/dl	6.37	4.79	7.95	
	nmol/l	193	145	241	Diasorin Liaison
	µg/dl	6.95	5.22	8.68	
	nmol/l	187	140	234	Beckman Access
	µg/dl	6.73	5.04	8.42	
nmol/l	171	128	214	Tosoh Series	
µg/dl	6.16	4.61	7.71		
nmol/l	133	100	166	Vitros Eci	
µg/dl	4.79	3.60	5.98		
nmol/l	174	131	218	Roche Cobas 6000/8000	
µg/dl	6.26	4.72	7.80		
nmol/l	185	139	231	Roche Cobas E411	
µg/dl	6.66	5.00	8.32		
nmol/l	184	138	230	Roche Cobas 4000/e411 Gen II	
µg/dl	6.62	4.97	8.27		
nmol/l	173	130	216	Roche Cobas 6000/8000 Gen II	
µg/dl	6.23	4.68	7.78		
DHEA-S	µmol/l	1.85	1.48	2.22	Abbott Architect
	µmol/l	1.46	1.17	1.75	Siemens Immulite 2000/2500
	µmol/l	1.38	1.10	1.66	Siemens Immulite 1000
	µmol/l	1.74	1.39	2.09	Beckman Dxl800
	µmol/l	2.38	1.90	2.86	Roche Elecsys
	µmol/l	1.73	1.38	2.08	Beckman Access
	µmol/l	1.81	1.18	2.44	Siemens Centaur XP/XPT/Classic
	µmol/l	2.31	1.85	2.77	Roche Cobas E411
	µmol/l	2.19	1.75	2.63	Roche Cobas 6000/8000
µmol/l	1.48	1.18	1.78	Diasorin Liaison XL	

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods	
			low	high		
Digoxin	nmol/l	0.541	0.433	0.649	Abbott Architect	
	ng/ml	0.423	0.338	0.508		
	nmol/l	0.558	0.446	0.670	BioMerieux Vidas	
	ng/ml	0.436	0.348	0.524		
	nmol/l	0.931	0.698	1.16	Siemens Centaur XP/XPT/Classic	
	ng/ml	0.727	0.545	0.909		
	nmol/l	0.695	0.556	0.834	Siemens Dimension	
	ng/ml	0.543	0.434	0.652		
	nmol/l	0.712	0.570	0.854	Beckman Dxl800	
	ng/ml	0.556	0.445	0.667		
	nmol/l	0.929	0.743	1.11	Roche Integra	
	ng/ml	0.726	0.580	0.872		
	nmol/l	0.781	0.625	0.937	Vitros	
	ng/ml	0.610	0.488	0.732		
	nmol/l	0.855	0.684	1.03	Roche Cobas 6000/8000	
	ng/ml	0.668	0.534	0.802		
	Ethosuximide	nmol/l	0.994	0.795	1.19	Beckman AU400/600/640/2700/5400
		ng/ml	0.776	0.621	0.931	
Ethosuximide	nmol/l	0.953	0.762	1.14	Roche Cobas 4000/E411	
	ng/ml	0.744	0.595	0.893		
Ethosuximide	nmol/l	0.896	0.720	1.08	Gravimetric	
	ng/ml	0.700	0.560	0.840		
Ethosuximide	µmol/l	226	181	271	Gravimetric	
	µg/ml	32.0	25.7	38.4		
Ferritin	ng/ml = µg/l	17.4	13.9	20.9	Abbott Architect	
	ng/ml = µg/l	14.0	11.2	16.8	BioMerieux Vidas	
	ng/ml = µg/l	19.7	15.8	23.6	Roche Tinaquant	
	ng/ml = µg/l	15.1	11.3	18.9	Siemens Centaur XP/XPT/Classic	
	ng/ml = µg/l	16.5	13.2	19.8	Siemens Dimension	
	ng/ml = µg/l	15.1	12.1	18.1	Siemens Immulite 2000/2500	
	ng/ml = µg/l	14.1	11.3	16.9	Siemens Immulite 1000	
	ng/ml = µg/l	11.7	9.36	14.0	Beckman Dxl800	
	ng/ml = µg/l	17.8	14.2	21.4	Roche Elecsys	
	ng/ml = µg/l	13.7	11.0	16.4	Diasorin Liaison	
	ng/ml = µg/l	18.0	14.4	21.6	Roche Modular E170	
	ng/ml = µg/l	11.6	9.28	13.9	Beckman Access	
	ng/ml = µg/l	10.9	8.72	13.1	Tosoh Series	
	ng/ml = µg/l	12.4	9.92	14.9	Vitros ECi	
	ng/ml = µg/l	14.5	11.6	17.4	Immunotech IRMA	
	ng/ml = µg/l	17.7	14.2	21.2	Roche Cobas E411	
	ng/ml = µg/l	12.9	10.3	15.5	Beckman AU400/600/640/2700/5400	
	Folate	ng/ml = µg/l	9.25	7.40	11.1	Fujirebio Lumipulse G Series
ng/ml = µg/l		13.3	9.98	16.6	Siemens Centaur CP	
Folate	ng/ml = µg/l	14.1	11.3	16.9	Diasorin Liaison XL	
	nmol/l	4.74	3.60	5.88	Abbott Architect	
Folate	ng/ml	2.09	1.59	2.59		

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods	
			low	high		
Folate	nmol/l	11.1	6.11	16.1	Siemens Centaur XP/XPT/Classic (enhanced kit)	
	ng/ml	4.90	2.70	7.10		
	nmol/l	3.28	2.49	4.07	Siemens Immulite 2000	
	ng/ml	1.45	1.10	1.80		
	nmol/l	4.12	3.13	5.11	Beckman Dxl800	
	ng/ml	1.82	1.38	2.26		
	nmol/l	4.42	3.36	5.48	Beckman Access	
	ng/ml	1.95	1.48	2.42		
	nmol/l	5.91	4.49	7.33	Tosoh Series	
	ng/ml	2.61	1.98	3.24		
	nmol/l	3.73	2.83	4.63	Vitros ECI	
	ng/ml	1.64	1.25	2.03		
	Free T3	pmol/l	3.05	2.29	3.81	Abbott Architect
		ng/dl	0.198	0.149	0.247	
pg/ml		1.99	1.49	2.49		
pmol/l		2.54	1.91	3.18	BioMerieux Vidas	
ng/dl		0.165	0.124	0.206		
pg/ml		1.65	1.24	2.06		
pmol/l		3.55	2.13	4.97	Siemens Centaur XP/XPT/Classic	
ng/dl		0.231	0.139	0.323		
pg/ml		2.31	1.39	3.23		
pmol/l		3.09	2.32	3.86	Siemens Immulite 2000/2500	
ng/dl		0.201	0.151	0.251		
pg/ml		2.01	1.51	2.51		
pmol/l		2.86	2.15	3.58	Siemens Immulite 1000	
ng/dl		0.186	0.140	0.232		
pg/ml		1.86	1.40	2.32		
pmol/l		3.47	2.60	4.34	Beckman Dxl800	
ng/dl		0.226	0.169	0.283		
pg/ml		2.26	1.69	2.83		
pmol/l		3.86	2.90	4.83	Roche Elecsys	
ng/dl		0.251	0.189	0.313		
pg/ml		2.51	1.89	3.13		
pmol/l		2.69	2.02	3.36	Diasorin Liaison	
ng/dl		0.175	0.131	0.219		
pg/ml		1.75	1.32	2.18		
pmol/l		3.51	2.63	4.39	Beckman Access	
ng/dl		0.228	0.171	0.285		
pg/ml		2.29	1.71	2.87		
pmol/l		2.55	1.91	3.19	Tosoh Series	
ng/dl		0.166	0.124	0.208		
pg/ml		1.66	1.24	2.08		
pmol/l	5.95	4.46	7.44	Vitros ECI		
ng/dl	0.387	0.290	0.484			
pg/ml	3.87	2.90	4.84			
pmol/l	4.02	3.02	5.03	Roche Cobas E411		
ng/dl	0.261	0.196	0.326			
pg/ml	2.62	1.97	3.27			

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods	
			low	high		
Free T3	pmol/l	3.79	2.84	4.74	Roche Cobas 6000/8000	
	ng/dl	0.246	0.185	0.307		
	pg/ml	2.47	1.85	3.09		
	pmol/l	3.80	2.28	5.32	Siemens Centaur CP	
		ng/dl	0.247	0.148		0.346
		pg/ml	2.47	1.48		3.46
	pmol/l	2.66	2.00	3.33	Diasorin Liaison XL	
		ng/dl	0.173	0.130		0.216
		pg/ml	1.73	1.30		2.16
Free T4	pmol/l	8.67	6.50	10.8	Abbott Architect	
	ng/dl	0.676	0.507	0.845		
	pg/ml	6.76	5.07	8.45		
	pmol/l	7.45	5.59	9.31	Siemens Centaur XP/XPT/Classic	
		ng/dl	0.581	0.436		0.726
		pg/ml	5.81	4.36		7.26
	pmol/l	10.1	7.58	12.6	CIS RIA Coated tube	
		ng/dl	0.788	0.591		0.985
		pg/ml	7.88	5.91		9.85
	pmol/l	12.4	9.30	15.5	Siemens Immulite 2000/2500	
		ng/dl	0.967	0.725		1.21
		pg/ml	9.67	7.25		12.1
	pmol/l	12.0	9.00	15.0	Siemens Immulite 1000	
		ng/dl	0.936	0.702		1.17
		pg/ml	9.36	7.02		11.7
	pmol/l	9.13	6.85	11.4	Beckman Dxl800	
		ng/dl	0.712	0.534		0.890
		pg/ml	7.12	5.34		8.90
	pmol/l	11.9	8.93	14.9	Roche Elecsys	
		ng/dl	0.928	0.697		1.16
		pg/ml	9.28	6.97		11.6
	pmol/l	11.1	8.33	13.9	Diasorin Liaison	
		ng/dl	0.866	0.650		1.08
		pg/ml	8.66	6.50		10.8
	pmol/l	9.31	6.98	11.6	Beckman Access	
		ng/dl	0.726	0.544		0.908
		pg/ml	7.26	5.44		9.08
pmol/l	8.74	6.56	10.9	Tosoh Series		
	ng/dl	0.682	0.512		0.852	
	pg/ml	6.82	5.12		8.52	
pmol/l	13.0	9.75	16.3	Vitros ECi		
	ng/dl	1.01	0.761		1.26	
	pg/ml	10.1	7.61		12.6	
pmol/l	11.7	8.78	14.6	Roche Cobas 6000/8000		
	ng/dl	0.913	0.685		1.14	
	pg/ml	9.13	6.85		11.4	

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods
			low	high	
Free T4	pmol/l	11.3	8.48	14.1	Immunotech IRMA
	ng/dl	0.881	0.661	1.10	
	pg/ml	8.81	6.61	11.0	
	pmol/l	12.1	9.08	15.1	Roche Cobas E411
	ng/dl	0.944	0.708	1.18	
	pg/ml	9.44	7.08	11.8	
	pmol/l	9.06	6.80	11.3	Biomerieux Vidas FT4N Kit
	ng/dl	0.707	0.530	0.884	
	pg/ml	7.07	5.30	8.84	
	pmol/l	8.20	6.15	10.3	Siemens Centaur CP
	ng/dl	0.640	0.480	0.800	
	pg/ml	6.40	4.80	8.00	
	pmol/l	8.43	6.32	10.5	Mindray CL-2000i
	ng/dl	0.658	0.493	0.823	
	pg/ml	6.58	4.93	8.23	
pmol/l	10.8	8.10	13.5	Diasorin Liaison XL	
ng/dl	0.842	0.632	1.05		
pg/ml	8.42	6.32	10.5		
FSH	mU/ml	5.53	4.42	6.64	Abbott Architect
	mU/ml	6.93	5.54	8.32	BioMerieux Vidas
	mU/ml	8.54	5.98	11.1	Siemens Centaur XP/XPT/Classic
	mU/ml	6.78	5.42	8.14	Siemens Immulite 2000/2500
	mU/ml	7.16	5.73	8.59	Siemens Immulite 1000
	mU/ml	6.88	5.50	8.26	Beckman Dxl800
	mU/ml	6.38	5.10	7.66	Roche/BM Elecsys
	mU/ml	7.50	6.00	9.00	Diasorin Liaison
	mU/ml	6.71	5.37	8.05	Beckman Access
	mU/ml	6.86	5.49	8.23	Tosoh Series
	mU/ml	5.10	4.08	6.12	Vitros ECi
	mU/ml	6.51	5.21	7.81	Roche Cobas E411
	mU/ml	6.13	4.90	7.36	Roche Cobas 6000/8000
	mU/ml	5.42	4.34	6.50	Fujirebio Lumipulse G Series
	mU/ml	6.21	4.35	8.07	Siemens Centaur CP
mU/ml	4.43	3.54	5.32	Mindray CL-2000i	
mU/ml	9.62	7.70	11.5	Diasorin Liaison XL	
Gentamicin	µmol/l	4.40	3.52	5.28	Roche Integra
	µg/ml	2.10	1.68	2.52	
	µmol/l	4.26	3.41	5.11	Siemens Dimension Vista
	µg/ml	2.04	1.63	2.45	
	µmol/l	3.40	2.72	4.08	Roche Cobas 6000/8000
	µg/ml	1.63	1.30	1.96	
Growth Hormone (GH)	µU/ml	5.09	4.07	6.11	Siemens Immulite 2000/2500
	ng/ml	1.69	1.36	2.02	

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods
			low	high	
Growth Hormone (GH)	μU/ml	4.84	3.87	5.81	Siemens Immulite 1000
	ng/ml	1.61	1.29	1.93	
	μU/ml	3.62	2.90	4.34	Beckman Dxl800
	ng/ml	1.21	0.966	1.45	
	μU/ml	3.72	2.98	4.46	Beckman Access
	ng/ml	1.24	0.992	1.49	
	μU/ml	4.52	3.62	5.42	Tosoh Series
	ng/ml	1.51	1.21	1.81	
	μU/ml	3.84	3.07	4.61	Diasorin Liaison
	ng/ml	1.28	1.02	1.54	
	μU/ml	4.59	3.67	5.51	Roche Cobas E411
	ng/ml	1.53	1.22	1.84	
	μU/ml	4.70	3.76	5.64	Roche Cobas 6000/8000
	ng/ml	1.57	1.25	1.89	
Immunoglobulin E	μU/ml	4.42	3.54	5.30	IDS iSYS
	ng/ml	1.47	1.18	1.76	
	μU/ml	3.83	3.06	4.60	Diasorin Liaison XL
	ng/ml	1.28	1.02	1.54	
	KIU/I = IU/ml	247	198	296	Abbott Architect
	KIU/I = IU/ml	198	158	238	Beckman Immage
	KIU/I = IU/ml	222	178	266	BioMerieux Vidas
	KIU/I = IU/ml	275	165	385	Siemens Centaur XP/XPT/Classic
	KIU/I = IU/ml	259	207	311	Siemens Immulite 2000/2500
	KIU/I = IU/ml	269	215	323	Siemens Immulite 1000
	KIU/I = IU/ml	242	194	290	Beckman Dxl800
	KIU/I = IU/ml	257	206	308	Roche Elecsys
	KIU/I = IU/ml	243	194	292	Pharmacia Unicap
	KIU/I = IU/ml	238	190	286	Tosoh Series
KIU/I = IU/ml	263	210	316	Roche Cobas E411	
KIU/I = IU/ml	262	210	314	Roche Cobas 6000/8000	
KIU/I = IU/ml	224	179	269	Fujirebio Lumipulse G Series	
KIU/I = IU/ml	246	148	344	Siemens Centaur CP	
Insulin	mU/l	1.83	1.37	2.29	Siemens Centaur XP/XPT/Classic
	μU/ml	1.83	1.37	2.29	
	mU/l	2.43	1.82	3.04	Roche Elecsys
	μU/ml	2.43	1.82	3.04	
	mU/l	1.03	0.773	1.29	Beckman Access
	μU/ml	1.03	0.773	1.29	
	mU/l	1.53	1.15	1.91	Abbott Architect
	μU/ml	1.53	1.15	1.91	
	mU/l	3.36	2.52	4.20	Tosoh Series
	μU/ml	3.36	2.52	4.20	
	mU/l	2.40	1.80	3.00	Roche Cobas E411
	μU/ml	2.40	1.80	3.00	
	mU/l	0.979	0.734	1.22	Beckman Dxl 600/800
	μU/ml	0.979	0.734	1.22	

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods	
			low	high		
Insulin	mU/l	1.60	1.20	2.00	Diasorin Liaison	
	µU/ml	1.60	1.20	2.00		
	mU/l	2.53	1.90	3.16	Roche Cobas 6000/8000	
	µU/ml	2.53	1.90	3.16		
	mU/l	2.14	1.61	2.68	Fujirebio Lumipulse G Series	
	µU/ml	2.14	1.61	2.67		
	mU/l	1.57	1.18	1.96	Siemens Centaur CP	
	µU/ml	1.57	1.18	1.96		
	Luteinising Hormone (LH)	mU/ml	2.53	2.02	3.04	Abbott Architect
		mU/ml	3.28	2.62	3.94	BioMerieux Vidas
		mU/ml	3.08	2.31	3.85	Siemens Centaur XP/XPT/Classic
		mU/ml	5.55	4.44	6.66	Siemens Immulite 2000
mU/ml		5.85	4.68	7.02	Siemens Immulite 1000	
mU/ml		2.37	1.90	2.84	Beckman Dxl800	
mU/ml		4.05	3.24	4.86	Roche Elecsys	
mU/ml		4.14	3.31	4.97	Diasorin Liaison	
mU/ml		2.45	1.96	2.94	Beckman Access	
mU/ml		2.88	2.30	3.46	Tosoh Series	
mU/ml		5.97	4.78	7.16	Vitros ECi	
mU/ml		4.04	3.23	4.85	Roche Cobas E411	
mU/ml		4.12	3.30	4.94	Roche Cobas 6000/8000	
mU/ml		2.95	2.36	3.54	Fujirebio Lumipulse G Series	
mU/ml		2.89	2.17	3.61	Siemens Centaur CP	
mU/ml		3.91	3.13	4.69	Mindray CL-2000i	
mU/ml	4.18	3.34	5.02	Diasorin Liaison XL		
Oestradiol	pmol/l	190	152	228	Abbott Architect	
	pg/ml	51.7	41.3	62.1		
	pmol/l	254	203	305	BioMerieux Vidas	
	pg/ml	69.1	55.2	83.0		
	pmol/l	167	100	234	Siemens Centaur XP/XPT/Classic	
	pg/ml	45.4	27.2	63.6		
	pmol/l	101	80.8	121	Siemens Immulite 2000/2500	
	pg/ml	27.5	22.0	33.0		
	pmol/l	190	152	228	Roche Elecsys (Estradiol II)	
	pg/ml	51.7	41.3	62.1		
	pmol/l	62.1	49.7	74.5	Tosoh (E2)	
	pg/ml	16.9	13.5	20.3		
	pmol/l	83.6	66.9	100	Vitros ECi	
	pg/ml	22.7	18.2	27.2		
	pmol/l	197	158	236	Roche Cobas 6000/8000 (Estradiol II)	
	pg/ml	53.6	43.0	64.2		
pmol/l	192	154	230	Roche Cobas 4000/E411 (Estradiol II)		
pg/ml	52.2	41.9	62.5			
pmol/l	172	138	206	Siemens Centaur XP/XPT/Classic Enhanced (eE2)		
pg/ml	46.8	37.5	56.1			
pmol/l	187	112	262	Siemens Centaur CP		
pg/ml	50.9	30.5	71.3			

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods
			low	high	
Oestradiol	pmol/l	166	133	199	Fujirebio Lumipulse G Series
	pg/ml	45.2	36.2	54.2	
	pmol/l	201	161	241	Roche Cobas 6000/8000 (Estradiol III)
	pg/ml	54.7	43.8	65.6	
	pmol/l	197	158	236	Roche Elecsys (Estradiol III)
	pg/ml	53.6	43.0	64.2	
Paracetamol	pmol/l	192	154	230	Roche Cobas 4000/E411 (Estradiol III)
	pg/ml	52.2	41.9	62.5	
	pmol/l	130	104	156	Diasorin Liaison XL
	pg/ml	35.4	28.3	42.5	
	mmol/l	0.160	0.128	0.192	Abbott Architect
	mg/l	24.2	19.4	29.0	
Phenobarbital	mmol/l	0.151	0.121	0.181	Roche Cobas 6000/8000
	mg/l	22.8	18.3	27.3	
	mmol/l	0.166	0.130	0.200	Gravimetric
	mg/l	25.1	19.7	30.3	
	µmol/l	33.9	27.1	40.7	Abbott Architect
	µg/ml	7.86	6.29	9.43	
Phenytoin	µmol/l	36.2	29.0	43.4	Siemens ADVIA 1200/1650/1800/2400
	µg/ml	8.40	6.73	10.1	
	µmol/l	32.9	26.3	39.5	Roche Cobas 6000/8000
	µg/ml	7.63	6.10	9.16	
	µmol/l	35.7	28.6	42.8	Siemens Immulite 2000/2500
	µg/ml	8.28	6.64	9.92	
	µmol/l	30.8	24.6	37.0	Beckman AU400/600/640/2700/5400
	µg/ml	7.15	5.71	8.59	
	µmol/l	43.5	30.5	56.5	Siemens Centaur XP/XPT/Classic
	µg/ml	10.1	7.07	13.1	
	µmol/l	36.0	28.8	43.2	Roche Integra
	µg/ml	8.35	6.68	10.0	
	µmol/l	34.3	27.4	41.2	Siemens Immulite 1000
	µg/ml	7.96	6.36	9.56	
Phenytoin	µmol/l	33.0	26.4	39.6	Beckman DxC
	µg/ml	7.66	6.12	9.20	
	µmol/l	34.5	27.6	41.4	Gravimetric
	µg/ml	8.00	6.40	9.60	
	µmol/l	19.1	15.3	22.9	Abbott Architect
	µg/ml	4.82	3.86	5.78	
Phenytoin	µmol/l	19.7	14.8	24.6	Siemens Centaur XP/XPT/Classic
	µg/ml	4.97	3.73	6.21	
	µmol/l	17.8	14.2	21.4	Siemens Dimension
	µg/ml	4.49	3.59	5.39	
	µmol/l	18.9	15.1	22.7	Siemens Immulite 2000/2500
	µg/ml	4.77	3.81	5.73	
Phenytoin	µmol/l	20.0	16.0	24.0	Siemens Immulite 1000
	µg/ml	5.05	4.04	6.06	

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods
			low	high	
Phenytoin	µmol/l	18.6	14.9	22.3	Roche Integra
	µg/ml	4.70	3.76	5.64	
	µmol/l	18.0	14.4	21.6	Vitros
	µg/ml	4.55	3.64	5.46	
	µmol/l	18.2	14.6	21.8	Roche Cobas 6000/8000
	µg/ml	4.60	3.69	5.51	
	µmol/l	18.7	15.0	22.4	Beckman DxC
	µg/ml	4.72	3.79	5.65	
Primidone	µmol/l	12.3	9.84	14.8	Gravimetric
	µg/ml	2.69	2.15	3.23	
Progesterone	nmol/l	3.13	2.50	3.76	Abbott Architect
	ng/ml	0.980	0.783	1.18	
	nmol/l	4.67	3.74	5.60	BioMerieux Vidas
	ng/ml	1.46	1.17	1.75	
	nmol/l	2.67	1.47	3.87	Siemens Centaur XP/XPT/Classic
	ng/ml	0.836	0.460	1.21	
	nmol/l	2.81	2.25	3.37	Siemens Immulite 2000/2500
	ng/ml	0.880	0.704	1.06	
	nmol/l	2.83	2.26	3.40	Siemens Immulite 1000
	ng/ml	0.886	0.707	1.07	
	nmol/l	2.74	2.19	3.29	Beckman Dxl Prog Cal 33555
	ng/ml	0.858	0.685	1.03	
	nmol/l	3.42	2.74	4.10	Roche Elecsys (Prog. II)
	ng/ml	1.07	0.858	1.28	
	nmol/l	2.95	2.36	3.54	Beckman Access Prog Cal 33555
	ng/ml	0.923	0.739	1.11	
	nmol/l	2.36	1.89	2.83	Vitros ECi
	ng/ml	0.739	0.592	0.886	
	nmol/l	3.58	2.86	4.30	Roche Cobas 4000/e411 (Prog. II)
	ng/ml	1.12	0.895	1.35	
nmol/l	3.57	2.86	4.28	Roche Cobas 6000/8000 (Prog. II)	
ng/ml	1.12	0.895	1.35		
nmol/l	2.48	1.98	2.98	Diasorin Liaison	
ng/ml	0.776	0.620	0.932		
nmol/l	2.41	1.93	2.89	Beckman Dxl Prog DE Cal A80773	
ng/ml	0.754	0.604	0.904		
nmol/l	2.93	1.61	4.25	Siemens Centaur CP	
ng/ml	0.917	0.504	1.33		
nmol/l	1.70	1.36	2.04	Mindray CL-2000i	
ng/ml	0.532	0.426	0.638		
nmol/l	2.18	1.74	2.62	Fujirebio Lumipulse G Series	
ng/ml	0.682	0.545	0.819		
nmol/l	3.58	2.86	4.30	Roche Cobas 6000/8000 (Prog. III)	
ng/ml	1.12	0.895	1.35		

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods
			low	high	
Progesterone	nmol/l	3.50	2.80	4.20	Roche Cobas 4000/e411 (Prog. III)
	ng/ml	1.10	0.876	1.32	
	nmol/l	1.87	1.50	2.24	Diasorin Liaison XL
	ng/ml	0.585	0.470	0.700	
Prolactin	µU/ml	194	155	233	Abbott Architect
	µU/ml	190	152	228	BioMerieux Vidas
	µU/ml	164	115	213	Siemens Centaur XP/XPT/Classic
	µU/ml	161	129	193	Siemens Immulite 2000/2500
	µU/ml	170	136	204	Siemens Immulite 1000
	µU/ml	152	122	182	Beckman Dxl800
	µU/ml	157	126	188	Roche Elecsys
	µU/ml	190	152	228	Diasorin Liaison
	µU/ml	158	126	190	Beckman Access
	µU/ml	186	149	223	Tosoh Series
	µU/ml	209	167	251	Vitros ECi
	µU/ml	155	124	186	Roche Elecsys/E170/Cobas 6000/8000 PRLII
	µU/ml	200	160	240	Immunotech IRMA
	µU/ml	156	125	187	Roche Cobas E411
	µU/ml	151	121	181	Roche Cobas 6000/8000
	µU/ml	217	174	260	Fujirebio Lumipulse G Series
	µU/ml	155	109	202	Siemens Centaur CP
µU/ml	231	185	277	Mindray CL-2000i	
µU/ml	186	149	223	Diasorin Liaison XL	
PSA Free	ng/ml = µg/l	1.49	1.12	1.86	Abbott Architect
	ng/ml = µg/l	1.16	0.870	1.45	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	1.21	0.908	1.51	Siemens Immulite 2000/2500
	ng/ml = µg/l	1.06	0.795	1.33	Siemens Immulite 1000
	ng/ml = µg/l	1.51	1.13	1.89	Beckman DXI standardised to Hybritech
	ng/ml = µg/l	0.941	0.706	1.18	Roche Elecsys
	ng/ml = µg/l	0.875	0.656	1.09	Diasorin Liaison
	ng/ml = µg/l	1.58	1.19	1.98	Beckman Access standardised to Hybritech
	ng/ml = µg/l	0.848	0.636	1.06	Tosoh Series
	ng/ml = µg/l	0.951	0.713	1.19	Roche Cobas E411
	ng/ml = µg/l	0.945	0.709	1.18	Roche Cobas 6000/8000
	ng/ml = µg/l	1.07	0.803	1.34	Siemens Dimension Vista
	ng/ml = µg/l	1.34	1.01	1.68	Beckman Dxl800 standardised to WHO IRP96/670
	ng/ml = µg/l	1.56	1.17	1.95	Beckman Access standardised to WHO IRP96/670
	ng/ml = µg/l	0.508	0.381	0.635	Ortho Vitros 3600/5600/ECi PSA II
	ng/ml = µg/l	1.02	0.765	1.28	Fujirebio Lumipulse G Series
	ng/ml = µg/l	0.819	0.614	1.02	Diasorin Liaison XL
PSA Total	ng/ml = µg/l	1.42	1.07	1.78	Abbott Architect
	ng/ml = µg/l	1.81	1.36	2.26	bioMerieux VIDAS TPSA
	ng/ml = µg/l	1.61	1.21	2.01	Siemens Centaur XP/XPT/Classic
	ng/ml = µg/l	0.773	0.580	0.966	Siemens Immulite 2000/2500 1st generation
	ng/ml = µg/l	0.935	0.701	1.17	Siemens Immulite 1000 3rd generation

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods
			low	high	
PSA Total	ng/ml = µg/l	0.859	0.644	1.07	Siemens Immulite 1000 1st generation
	ng/ml = µg/l	2.07	1.55	2.59	Beckman Dxl standardisd to Hybritech
	ng/ml = µg/l	1.93	1.45	2.41	Beckman Dxl800 standardised to WHO IRP96/670
	ng/ml = µg/l	1.90	1.43	2.38	Roche Elecsys
	ng/ml = µg/l	0.945	0.709	1.18	Diasorin Liaison
	ng/ml = µg/l	2.09	1.57	2.61	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	1.25	0.938	1.56	Tosoh Series
	ng/ml = µg/l	1.83	1.37	2.29	Vitros ECi
	ng/ml = µg/l	2.45	1.84	3.06	CIS RIA Coated tube
	ng/ml = µg/l	1.92	1.44	2.40	Roche Cobas E411
	ng/ml = µg/l	1.98	1.49	2.48	Roche Cobas 6000/8000
	ng/ml = µg/l	2.35	1.76	2.94	Monobind Inc. ELISA / CLIA
	ng/ml = µg/l	1.34	1.01	1.68	Fujirebio Lumipulse G Series
	ng/ml = µg/l	1.88	1.41	2.35	Ortho Vitros 3600/5600/ECi PSA II
ng/ml = µg/l	1.56	1.17	1.95	Siemens Centaur CP	
ng/ml = µg/l	0.865	0.649	1.08	Diasorin Liaison XL	
Salicylic Acid	mmol/l	0.115	0.092	0.138	Abbott Architect
	mg/dl	1.59	1.27	1.91	
	mmol/l	0.286	0.230	0.340	Gravimetric
	mg/dl	3.95	3.18	4.70	
SHBG	nmol/l	11.8	9.44	14.2	Siemens Immulite 1000
	nmol/l	12.3	9.84	14.8	Siemens Immulite 2000/2500
	nmol/l	13.5	10.8	16.2	Roche Elecsys
	nmol/l	12.3	9.84	14.8	Abbott Architect
	nmol/l	14.1	11.3	16.9	Roche Cobas E411
	nmol/l	13.9	11.1	16.7	Roche Cobas 6000/8000
	nmol/l	11.9	9.52	14.3	Beckman Dxl800
T Uptake	%U	32.4	26.6	38.2	Siemens Immulite 2000
Testosterone	nmol/l	1.96	1.57	2.35	Abbott Architect
	ng/ml	0.564	0.452	0.676	
	ng/dl	56.4	45.2	67.6	
	nmol/l	0.912	0.730	1.09	BioMerieux Vidas
	ng/ml	0.263	0.210	0.316	
	ng/dl	26.3	21.0	31.6	
	nmol/l	1.56	1.01	2.11	Siemens Centaur XP/XPT/Classic
	ng/ml	0.449	0.292	0.606	
	ng/dl	44.9	29.2	60.6	
	nmol/l	1.37	1.10	1.64	Beckman Dxl800
	ng/ml	0.395	0.317	0.473	
	ng/dl	39.5	31.7	47.3	
	nmol/l	1.54	1.23	1.85	Beckman Access
ng/ml	0.444	0.354	0.534		
ng/dl	44.4	35.4	53.4		
nmol/l	0.926	0.741	1.11	Tosoh Series	
ng/ml	0.267	0.213	0.321		
ng/dl	26.7	21.3	32.1		

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods
			low	high	
Testosterone	nmol/l	0.901	0.721	1.08	Vitros ECI
	ng/ml	0.259	0.208	0.310	
	ng/dl	25.9	20.8	31.0	
	nmol/l	1.60	1.28	1.92	Roche Cobas 6000 Test 2
	ng/ml	0.461	0.369	0.553	
	ng/dl	46.1	36.9	55.3	
	nmol/l	1.57	1.26	1.88	Roche Elecsys Test II
	ng/ml	0.452	0.363	0.541	
	ng/dl	45.2	36.3	54.1	
	nmol/l	1.72	1.38	2.06	Roche Cobas 4000/e411 Test II
	ng/ml	0.495	0.397	0.593	
	ng/dl	49.5	39.7	59.3	
	nmol/l	1.97	1.58	2.36	Abbott Architect 2nd Generation
	ng/ml	0.567	0.455	0.679	
	ng/dl	56.7	45.5	67.9	
	nmol/l	0.926	0.741	1.11	BioMerieux Vidas Testosterone II
	ng/ml	0.267	0.213	0.321	
	ng/dl	26.7	21.3	32.1	
nmol/l	1.56	1.01	2.11	Siemens Centaur TST II	
ng/ml	0.449	0.292	0.606		
ng/dl	44.9	29.2	60.6		
nmol/l	0.693	0.554	0.832	Diasorin Liaison XL	
ng/ml	0.200	0.160	0.240		
ng/dl	20.0	16.0	24.0		
Theophylline	µmol/l	25.7	20.6	30.8	Siemens Dimension
	µg/ml	4.63	3.71	5.55	
	µmol/l	27.9	22.3	33.5	Roche Integra
	µg/ml	5.03	4.02	6.04	
	µmol/l	25.2	20.2	30.2	Abbott Architect
	µg/ml	4.54	3.64	5.44	
	µmol/l	25.6	20.5	30.7	Roche Cobas 6000/8000
	µg/ml	4.61	3.69	5.53	
	µmol/l	20.8	16.6	25.0	Beckman AU400/600/640/2700/5400
	µg/ml	3.75	2.99	4.51	
µmol/l	28.3	22.6	34.0	Gravimetric	
µg/ml	5.10	4.07	6.13		
Thyroglobulin	ng/ml	0.246	0.185	0.308	Siemens Immulite 1000
	ng/ml	2.03	1.52	2.54	Roche Elecsys
	ng/ml	1.54	1.16	1.93	Beckman Dxl800
	ng/ml	2.14	1.61	2.68	Roche Cobas E411
	ng/ml	2.12	1.59	2.65	Roche Cobas 6000/8000
	ng/ml	1.55	1.16	1.94	Beckman Access
	ng/ml	1.74	1.31	2.18	Abbott Architect 2000i
	ng/ml	1.83	1.37	2.29	Tosoh Series
ng/ml	2.11	1.58	2.64	Roche Cobas 6000 TGII	

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods
			low	high	
Thyroglobulin	ng/ml	2.21	1.66	2.76	Roche Elecsys TGII
	ng/ml	2.22	1.67	2.78	Roche Cobas 4000/E411 TGII
	ng/ml	0.203	0.152	0.254	Diasorin Liaison XL
Thyroid Stimulating Hormone	µU/ml = mIU/l	0.094	0.075	0.113	Abbott Architect
	µU/ml = mIU/l	0.074	0.059	0.089	bioMerieux VIDAS TSH
	µU/ml = mIU/l	0.072	0.058	0.086	bioMerieux VIDAS TSH3 Ultrasensitive
	µU/ml = mIU/l	0.109	0.074	0.144	Siemens Centaur XP/XPT/Classic
	µU/ml = mIU/l	0.104	0.071	0.137	Siemens Centaur XP/XPT/Classic 3rd Generation
	µU/ml = mIU/l	0.103	0.082	0.124	Siemens Immulite 2000/2500
	µU/ml = mIU/l	0.123	0.098	0.148	Siemens Immulite 1000
	µU/ml = mIU/l	0.086	0.069	0.103	Beckman Dxl800 Fast TSH
	µU/ml = mIU/l	0.086	0.069	0.103	Beckman Dxl800
	µU/ml = mIU/l	0.138	0.110	0.166	Roche Elecsys
	µU/ml = mIU/l	0.122	0.098	0.146	Diasorin Liaison
	µU/ml = mIU/l	0.085	0.068	0.102	Beckman Access Fast TSH
	µU/ml = mIU/l	0.090	0.072	0.108	Beckman Access hyperTSH 3rd Generation
	µU/ml = mIU/l	0.112	0.090	0.134	Tosoh Series
	µU/ml = mIU/l	0.180	0.144	0.216	Vitros ECi
	µU/ml = mIU/l	0.137	0.110	0.164	Roche Cobas E411
	µU/ml = mIU/l	0.136	0.109	0.163	Roche Cobas 6000/8000
	µU/ml = mIU/l	0.091	0.073	0.109	Beckman Dxl800 Hyper TSH
	µU/ml = mIU/l	0.095	0.076	0.114	Siemens Dimension Vista LOCI
	µU/ml = mIU/l	0.104	0.071	0.137	Siemens Centaur XP/XPT/Classic TSH3-Ultra
µU/ml = mIU/l	0.109	0.074	0.144	Siemens Centaur CP	
µU/ml = mIU/l	0.104	0.071	0.137	Siemens Centaur CP TSH3-Ultra	
µU/ml = mIU/l	0.087	0.070	0.104	Beckman Dxl 600/800 Access (3rd IS)	
µU/ml = mIU/l	0.159	0.127	0.191	Diasorin Liaison XL	
Tobramycin	µmol/l	4.17	3.34	5.00	Gravimetric
	µg/ml	1.95	1.56	2.34	
Total Beta hCG	mU/ml=IU/l	8.59	6.87	10.3	Abbott Architect
	IU/ml	0.009	0.007	0.011	
	mU/ml=IU/l	23.9	19.1	28.7	BioMerieux Vidas
	IU/ml	0.024	0.019	0.029	
	mU/ml=IU/l	12.5	7.50	17.5	Siemens Centaur XP/XPT/Classic
	IU/ml	0.013	0.008	0.018	
	mU/ml=IU/l	31.0	24.8	37.2	Siemens Dimension
	IU/ml	0.031	0.025	0.037	
	mU/ml=IU/l	43.8	35.0	52.6	Siemens Immulite 2000
	IU/ml	0.044	0.035	0.053	
	mU/ml=IU/l	39.0	31.2	46.8	Siemens Immulite 1000
	IU/ml	0.039	0.031	0.047	
	mU/ml=IU/l	9.60	7.68	11.5	Beckman Dxl800
	IU/ml	0.010	0.008	0.012	
mU/ml=IU/l	13.8	11.0	16.6	Roche Cobas Core EIA	
IU/ml	0.014	0.011	0.017		
mU/ml=IU/l	9.56	7.65	11.5	Beckman Access	
IU/ml	0.010	0.008	0.012		

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods
			low	high	
Total Beta hCG	mU/ml=IU/l	26.2	21.0	31.4	Tosoh Series
	IU/ml	0.026	0.021	0.031	
	mU/ml=IU/l	29.5	23.6	35.4	Vitros ECi
	IU/ml	0.030	0.024	0.036	
	mU/ml=IU/l	12.1	9.68	14.5	Roche STAT (Intact)
	IU/ml	0.012	0.010	0.014	
	mU/ml=IU/l	14.1	11.3	16.9	Roche hCG+Beta
	IU/ml	0.014	0.011	0.017	
	mU/ml=IU/l	7.00	5.60	8.40	Fujirebio Lumipulse G Series
	IU/ml	0.007	0.006	0.008	
	mU/ml=IU/l	9.53	7.62	11.4	Beckman Access Total BhCG (5th IS)
	IU/ml	0.010	0.008	0.012	
	mU/ml=IU/l	9.53	7.62	11.4	Beckman Dxl Total BhCG (5th IS)
	IU/ml	0.010	0.008	0.012	
	mU/ml=IU/l	10.5	6.30	14.7	Siemens Centaur CP
	IU/ml	0.011	0.007	0.015	
mU/ml=IU/l	9.58	7.66	11.5	Diasorin Liaison XL	
IU/ml	0.010	0.008	0.012		
Total T3	nmol/l	0.804	0.603	1.01	Abbott Architect
	ng/ml	0.523	0.393	0.653	
	ng/dl	52.3	39.3	65.3	
	nmol/l	0.507	0.380	0.634	BioMerieux Vidas
	ng/ml	0.330	0.247	0.413	
	ng/dl	33.0	24.7	41.3	
	nmol/l	0.533	0.400	0.666	Siemens Centaur XP/XPT/Classic
	ng/ml	0.347	0.260	0.434	
	ng/dl	34.7	26.0	43.4	
	nmol/l	0.620	0.465	0.775	Siemens Immulite 2000/2500
	ng/ml	0.404	0.303	0.505	
	ng/dl	40.4	30.3	50.5	
	nmol/l	0.614	0.461	0.768	Siemens Immulite 1000
	ng/ml	0.400	0.300	0.500	
	ng/dl	40.0	30.0	50.0	
	nmol/l	0.991	0.743	1.24	Beckman Dxl800
	ng/ml	0.645	0.484	0.806	
	ng/dl	64.5	48.4	80.6	
	nmol/l	1.34	1.01	1.68	Roche Elecsys
	ng/ml	0.872	0.658	1.09	
	ng/dl	87.2	65.8	109	
	nmol/l	1.03	0.773	1.29	Diasorin Liaison
	ng/ml	0.671	0.503	0.839	
	ng/dl	67.1	50.3	83.9	
nmol/l	1.03	0.773	1.29	Beckman Access	
ng/ml	0.671	0.503	0.839		
ng/dl	67.1	50.3	83.9		

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Range					
Analyte	unit	Target	low	high	methods
Total T3	nmol/l	0.543	0.407	0.679	Tosoh Series
	ng/ml	0.353	0.265	0.441	
	ng/dl	35.3	26.5	44.1	
	nmol/l	0.751	0.563	0.939	Vitros ECi
	ng/ml	0.489	0.367	0.611	
	ng/dl	48.9	36.7	61.1	
	nmol/l	0.615	0.461	0.769	CIS RIA Coated tube
	ng/ml	0.400	0.300	0.500	
	ng/dl	40.0	30.0	50.0	
	nmol/l	1.28	0.960	1.60	Roche Cobas E411
	ng/ml	0.833	0.625	1.04	
	ng/dl	83.3	62.5	104	
nmol/l	1.16	0.870	1.45	Roche Cobas 6000/8000	
ng/ml	0.755	0.566	0.944		
ng/dl	75.5	56.6	94.4		
nmol/l	0.671	0.503	0.839	ELISA	
ng/ml	0.437	0.327	0.547		
ng/dl	43.7	32.7	54.7		
nmol/l	0.646	0.485	0.808	Siemens Centaur CP	
ng/ml	0.421	0.316	0.526		
ng/dl	42.1	31.6	52.6		
Total T4	nmol/l	31.8	23.9	39.8	Abbott Architect
	µg/dl	2.48	1.86	3.10	
	ng/ml	24.8	18.6	31.0	
	nmol/l	27.3	20.5	34.1	BioMerieux Vidas
	µg/dl	2.13	1.60	2.66	
	ng/ml	21.3	16.0	26.6	
	nmol/l	20.4	14.3	26.5	Siemens Centaur XP/XPT/Classic
	µg/dl	1.59	1.11	2.07	
	ng/ml	15.9	11.1	20.7	
	nmol/l	23.2	17.4	29.0	Siemens Immulite 2000/2500
	µg/dl	1.81	1.36	2.26	
	ng/ml	18.1	13.6	22.6	
	nmol/l	25.9	19.4	32.4	Siemens Immulite 1000
	µg/dl	2.02	1.51	2.53	
	ng/ml	20.2	15.1	25.3	
	nmol/l	19.5	14.6	24.4	Beckman Dxl800
	µg/dl	1.52	1.14	1.90	
	ng/ml	15.2	11.4	19.0	
nmol/l	35.8	26.9	44.8	Roche Elecsys	
µg/dl	2.79	2.10	3.48		
ng/ml	27.9	21.0	34.8		
nmol/l	32.2	24.2	40.3	Diasorin Liaison	
µg/dl	2.51	1.89	3.13		
ng/ml	25.1	18.9	31.3		
nmol/l	20.8	15.6	26.0	Beckman Access	
µg/dl	1.62	1.22	2.02		
ng/ml	16.2	12.2	20.2		

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods
			low	high	
Total T4	nmol/l	22.3	16.7	27.9	Tosoh Series
	µg/dl	1.74	1.30	2.18	
	ng/ml	17.4	13.0	21.8	
	nmol/l	27.4	20.6	34.3	Vitros ECi
	µg/dl	2.14	1.61	2.67	
	ng/ml	21.4	16.1	26.7	
	nmol/l	27.5	20.6	34.4	CIS RIA Coated tube
	µg/dl	2.15	1.61	2.69	
	ng/ml	21.5	16.1	26.9	
	nmol/l	35.0	26.3	43.8	Roche Cobas E411
	µg/dl	2.73	2.05	3.41	
	ng/ml	27.3	20.5	34.1	
nmol/l	34.2	25.7	42.8	Roche Cobas 6000/8000	
µg/dl	2.67	2.00	3.34		
ng/ml	26.7	20.0	33.4		
nmol/l	33.1	24.8	41.4	Diasorin Liaison XL	
µg/dl	2.58	1.93	3.23		
ng/ml	25.8	19.3	32.3		
Valproic Acid	µmol/l	156	125	187	Abbott Architect
	µg/ml	22.5	18.0	27.0	
	µmol/l	209	146	272	Siemens Centaur XP/XPT/Classic
	µg/ml	30.2	21.1	39.3	
	µmol/l	191	153	229	Siemens Dimension
	µg/ml	27.6	22.1	33.1	
	µmol/l	179	143	215	Siemens Immulite 2000/2500
	µg/ml	25.8	20.6	31.0	
	µmol/l	186	149	223	Siemens Immulite 1000
	µg/ml	26.8	21.5	32.1	
	µmol/l	196	157	235	Roche Integra
	µg/ml	28.3	22.7	33.9	
	µmol/l	193	154	232	Roche Cobas 6000/8000
	µg/ml	27.8	22.2	33.4	
	µmol/l	177	142	212	Beckman DxC
	µg/ml	25.5	20.5	30.5	
	µmol/l	192	154	230	Beckman AU400/600/640/2700/5400
	µg/ml	27.7	22.2	33.2	
µmol/l	211	169	253	Siemens ADVIA 1200/1650/1800/2400	
µg/ml	30.4	24.4	36.4		
µmol/l	243	194	292	Gravimetric	
µg/ml	35.1	28.0	42.1		
Vancomycin	µmol/l	3.47	2.78	4.16	Roche Integra
	µg/ml	5.16	4.13	6.19	
	µmol/l	3.34	2.67	4.01	Ortho Vitros Microslide Systems
	µg/ml	4.96	3.97	5.95	

IMMUNOASSAY PREMIUM PLUS LEVEL 1 (IA PREMIUM PLUS 1)

Cat. No. IA3109 / IA3112 Lot No. 1908EC Size: 12 x 5 ml / 4 x 5 ml Expiry: 2022-05-28

Analyte	unit	Target	Range		methods
			low	high	
Vancomycin	µmol/l	2.75	2.20	3.30	Abbott Architect
	µg/ml	4.09	3.27	4.91	
	µmol/l	1.93	1.45	2.41	Siemens Centaur XP/XPT/Classic
	µg/ml	2.87	2.15	3.59	
	µmol/l	2.71	2.17	3.25	Siemens Dimension
	µg/ml	4.03	3.22	4.84	
	µmol/l	3.02	2.42	3.62	Roche Cobas 6000/8000
	µg/ml	4.49	3.60	5.38	
Vitamin B12	µmol/l	2.81	2.25	3.37	Thermo Scientific QMS Vancomycin
	µg/ml	4.17	3.34	5.00	
	µmol/l	3.43	2.74	4.12	Gravimetric
	µg/ml	5.10	4.07	6.12	
	pmol/l	142	114	170	Abbott Architect
	pg/ml	192	154	230	
	pmol/l	116	81.2	151	Siemens Centaur XP/XPT/Classic
	pg/ml	157	110	204	
	pmol/l	84.2	67.4	101	Beckman DxI800
	pg/ml	114	91.3	137	
	pmol/l	177	142	212	Roche Elecsys
	pg/ml	240	192	288	
	pmol/l	92.0	73.6	110	Beckman Access
	pg/ml	125	100	150	
pmol/l	135	108	162	Vitros Eci	
pg/ml	183	146	220		
pmol/l	121	96.8	145	MP Biomedicals RIA	
pg/ml	164	131	197		
pmol/l	106	74.2	138	Siemens Centaur CP	
pg/ml	144	101	187		