

## ASSAYED URINE CONTROL - LEVEL 2 (URN ASY CONTROL 2)

**CAT. NO.** AU 2352                      **LOT NO.** 1101UC  
**SIZE:** 12 x 10 ml                      **EXPIRY:** 2024-03-28  
**GTIN:** 05055273200539

### INTENDED USE

This product is intended for *in vitro* diagnostic use, in the quality control of urine on clinical chemistry systems. The Assayed Urine Controls are for the control of accuracy.

### DEVICE DESCRIPTION

The Urine Controls are supplied at 2 levels, level 2 and 3. Target values and ranges are supplied for the following analytes at both levels; amylase, calcium, chloride, copper, cortisol, creatinine, dopamine, epinephrine, glucose, 5-Hydroxyindoleacetic acid, magnesium, metanephrine, microalbumin, norepinephrine (noradrenalin), normetanephrine, osmolality, oxalate, phosphorous inorganic, potassium, total protein, sodium, urea, uric acid and vanillylmandelic acid (VMA).

### 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.

Health and Safety Data Sheets are available on request.

### STORAGE AND STABILITY

**OPENED:** Store refrigerated (+2°C to +8°C). Reconstituted urine is stable for 8 hours at +15°C to +25°C and 5 days at +2°C to +8°C if kept capped in original container and free from contamination, or 14 days at -20°C. Only the required amount of product should be removed. After use, any residual product should NOT BE RETURNED to the original vial.

### PREPARATION AND STABILITY OF SAMPLES FOR

**Catecholamines, Vanillylmandelic Acid (VMA) and Oxalate:**

These analytes are unstable in urine samples. Fifteen minutes after complete reconstitution of the urine, remove an aliquot and add 8 µl of HCl (6M) per ml urine. Sample is stable for 5 days at +2°C to +8°C. For Oxalate measurement, it is recommended that EDTA is added to the urine sample at a concentration of 5 mg/10 ml material. This is to prevent the precipitation of Calcium Oxalate.

### 5-Hydroxyindole Acetic Acid (5-HIAA):

This analyte is also unstable in reconstituted urine samples. Fifteen minutes after complete reconstitution of the urine, remove an aliquot and add 10 µl of Glacial Acetic Acid (17.4M) per ml of urine. Sample is stable for 7 days at +2°C to +8°C.

Please note that if Nitroso-Naphthol method is used for 5-HIAA, 12 µl of HCl (6M) per ml of urine should be added to an aliquot of reconstituted urine. Sample is stable for 7 days at +2°C to +8°C. The addition of HCl is also recommended where 5-HIAA is assayed using HPLC methods with prior extraction.

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

### PREPARATION FOR USE

The Assayed Urine Control is supplied lyophilised.

- Carefully reconstitute each vial of lyophilised urine with exactly 10 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**

Assayed Urine Control - Level 2 12 x 10 ml

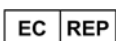
**MATERIALS REQUIRED BUT NOT PROVIDED**

Volumetric pipette

**ASSIGNED VALUES**

Each batch of Assayed Urine Control is submitted to a number of external laboratories and values are assigned from a consensus of results obtained by these laboratories. With each batch, a control range is provided for individual parameters and each parameter method. The control range is equivalent to the assigned mean  $\pm$  2SD.

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



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Analyte	unit	Target	Range		methods
			low	high	
5-HIAA	µmol/l	25.7	20.6	30.8	HPLC
Amylase	U/l	130	104	156	Vitros
	U/l	230	184	276	Siemens - blocked pNPG7
	U/l	249	199	299	Other blocked pNPG7
	U/l	235	188	282	Randox Liquid Ethylidene pNPG7
	U/l	212	170	254	Roche liquid pNPG7
	U/l	239	191	287	Beckman Synchron CX4/CX5/CX7
	U/l	221	177	265	Roche Integra 2-chloro-pNPG7
	U/l	232	186	278	Beckman Coulter - blocked pNPG7
	U/l	269	215	323	Siemens 2-chloro-pNPG3
	U/l	250	200	300	Other 2-chloro-pNPG3
	U/l	255	204	306	Abbott Architect Non-IFCC Cal.
U/l	275	220	330	Abbott Architect IFCC Cal.	
Calcium	mmol/l	1.69	1.52	1.86	Vitros
	mg/dl	6.77	6.09	7.45	
	mmol/l	1.58	1.42	1.74	Cresolphthalein complexone
	mg/dl	6.33	5.69	6.97	
	mmol/l	1.60	1.44	1.76	Ion selective electrode
	mg/dl	6.41	5.77	7.05	
	mmol/l	1.54	1.39	1.69	Arsenazo III
	mg/dl	6.17	5.57	6.77	
Chloride	mmol/l	85.9	73.0	98.8	Vitros
	mmol/l	83.0	70.6	95.5	ISE indirect
	mmol/l	81.4	69.2	93.6	ISE direct
Copper	µmol/l	1.62	1.30	1.94	Atomic absorption
	µg/dl	10.3	8.27	12.3	
Cortisol	nmol/l	99.4	74.6	124	Chemiluminescence (+ solvent extraction.)
	µg/dl	3.58	2.69	4.47	
	nmol/l	117	87.8	146	Chemiluminescence (direct)
	µg/dl	4.21	3.16	5.26	
Creatinine	mmol/l	6.74	5.39	8.09	Alkaline picrate no deproteinization
	mg/dl	76.2	60.9	91.5	
	mmol/l	6.99	5.59	8.39	Creatinine PAP method
	mg/dl	79.0	63.2	94.8	
	mmol/l	6.92	5.54	8.30	Enzymatic UV method
	mg/dl	78.2	62.6	93.8	
	mmol/l	6.91	5.53	8.29	Other enzymatic methods
	mg/dl	78.1	62.5	93.7	
	mmol/l	7.20	5.76	8.64	Roche Creatinine Plus
mg/dl	81.4	65.1	97.7		

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Range					
Analyte	unit	Target	low	high	methods
Creatinine	mmol/l	6.95	5.56	8.34	Jaffe rate blanked
	mg/dl	78.5	62.8	94.2	
	mmol/l	6.80	5.44	8.16	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	76.8	61.5	92.1	
	mmol/l	7.00	5.60	8.40	Vitros IDMS Traceable
	mg/dl	79.1	63.3	94.9	
	mmol/l	6.90	5.52	8.28	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	78.0	62.4	93.6	
Dopamine	nmol/l	513	410	616	HPLC
Epinephrine	nmol/l	66.3	53.0	79.6	HPLC
Glucose	mmol/l	2.62	2.10	3.14	Vitros
	mg/dl	47.2	37.8	56.6	
	mmol/l	2.78	2.22	3.34	Glucose oxidase
	mg/dl	50.1	40.0	60.2	
	mmol/l	2.78	2.22	3.34	Hexokinase
	mg/dl	50.1	40.0	60.2	
Magnesium	mmol/l	3.45	2.76	4.14	Vitros
	mg/dl	8.38	6.71	10.1	
	mmol/l	2.98	2.38	3.58	Xylidyl Blue
	mg/dl	7.24	5.78	8.70	
	mmol/l	3.03	2.42	3.64	Arsenazo III
	mg/dl	7.36	5.88	8.84	
	mmol/l	3.03	2.42	3.64	Chlorphosphonazo III
	mg/dl	7.36	5.88	8.84	
	mmol/l	3.09	2.47	3.71	Methylthymol blue
	mg/dl	7.51	6.00	9.02	
	mmol/l	3.03	2.42	3.64	Enzymatic
	mg/dl	7.36	5.88	8.84	
Metanephrine	µmol/l	0.257	0.206	0.308	HPLC
Microalbumin	mg/l	33.7	27.0	40.4	Immunoturbidimetric
	mg/l	36.2	29.0	43.4	Nephelometric
Norepinephrine	nmol/l	239	191	287	HPLC
Normetanephrine	µmol/l	1.16	0.928	1.39	HPLC
Osmolality	mOsm/kg	394	315	473	Freezing point depression
	mOsm/kg	346	277	415	Calculated
Oxalate	mmol/l	0.112	0.090	0.134	Oxalate oxidase
Phosphate Inorganic	mmol/l	9.97	7.98	12.0	Vitros
	mg/dl	30.9	24.7	37.1	
	mmol/l	8.68	6.94	10.4	Phosphomolybdate UV
	mg/dl	26.9	21.5	32.3	
	mmol/l	8.68	6.94	10.4	Phosphomolybdate enzymatic
	mg/dl	26.9	21.5	32.3	
Potassium	mmol/l	31.6	26.9	36.3	Vitros
	mmol/l	32.3	27.5	37.1	ISE direct
	mmol/l	30.4	25.8	35.0	ISE indirect
Protein Total	g/l	0.125	0.100	0.150	Biuret reaction - direct
	mg/dl	12.5	10.0	15.0	
	mg/l	125	100	150	

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Analyte	unit	Target	low	high	methods	
Protein Total	g/l	0.108	0.086	0.130	Turbidimetry	
	mg/dl	10.8	8.60	13.0		
	mg/l	108	86.0	130		
	g/l	0.135	0.108	0.162	Pyrogallol Red	
		mg/dl	13.5	10.8		16.2
		mg/l	135	108		162
	g/l	0.177	0.142	0.212	Vitros	
		mg/dl	17.7	14.2		21.2
		mg/l	177	142		212
Sodium	mmol/l	68.0	59.8	76.2	Vitros	
	mmol/l	65.1	57.3	72.9	ISE direct	
	mmol/l	63.1	55.5	70.7	ISE indirect	
Urea	mmol/l	158	126	190	Vitros	
	mg/dl	950	757	1143		
	mmol/l	151	121	181	Urease kinetic	
	mg/dl	908	727	1089		
	mmol/l	154	123	185	Urease end point	
	mg/dl	926	739	1113		
	Uric Acid (Urate)	mmol/l	0.775	0.620	0.930	Ortho Vitros Microslide Systems
		mg/dl	13.0	10.4	15.6	
mmol/l		0.839	0.671	1.01	Uricase catalase 340nm	
mg/dl		14.1	11.3	16.9		
mmol/l		0.738	0.590	0.886	Uricase peroxidase no ascorbate oxidase	
mg/dl		12.4	9.91	14.9		
mmol/l		0.744	0.595	0.893	Spectrophotometric at 280-290	
mg/dl		12.5	10.0	15.0		
mmol/l		0.698	0.558	0.838	Uricase Peroxidase with ascorbate oxidase @ 546nm	
mg/dl		11.7	9.37	14.0		
mmol/l		0.721	0.577	0.865	Uricase peroxidase with ascorbate oxidase	
mg/dl		12.1	9.69	14.5		
Vanillylmandelic Acid (VMA)	µmol/l	28.1	22.5	33.7	Column test	
	µmol/l	30.3	24.2	36.4	HPLC	