

Automatic Urine Analysis

# AUTION ELEVEN

AUTION ELEVEN AE-4020 | Urinalysis (compact)



Compact and high performance

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AUTION ELEVEN AE-4020 | Urinalysis (compact)

**Space-saving design: smaller than B4 paper size**

**High speed performance: 7 seconds per sample**

**Optimal device for urinalysis at small and medium-sized hospitals/clinics**



## High precision measurement of spot urine is possible

12 qualitative urine items + color tones are measurable. Additionally, measuring creatinine with protein/microalbumin at the same time makes high precision measurement of spot urine possible.

## High-speed processing with 7-second sequence

514 samples can be processed in an hour. It takes 7 seconds to process one sample. This device performs at the highest level in its class.

## Full of easy-to-use functions

It has an "auto-start mechanism" that automatically starts measurement by just setting a test strip onto the tray. It also has a "left/right placement function" that makes it possible to place a test strip from either the left or right side. You don't even have to press the start key. We strove for a user-friendly device for both right-handed and left-handed users. Also, as it is a low maintenance device, high precision measurements in a clean environment are always possible.

## Further improved measurement accuracy

Unlike our conventional products where excess urine was absorbed by an absorbent pad, AUTION Eleven is equipped with a new mechanism that uses capillary action to absorb and remove excess urine. By increasing the excess urine absorption power, the measurement accuracy was further improved.

## Further pursuing compactness

Compared to the conventional products, this device is even smaller and lighter. It can be installed in a very small space.

In addition, it has a power-saving design that reduces the operating costs.





AUTION SCREEN Microalbumin/Creatinine

Early detection of kidney diseases with spot urine

Microalbumin and creatinine are simultaneously measured.  
We expect it to be very helpful for detecting early kidney diseases where patients tend to have no symptoms and for screening diabetic nephropathy.

Reaction principle

**Albumin:** when albumin in the urine reacts with the indicator reagent, a red complex is formed and the color of the test pad changes from white to pink.  
The increased pink color intensity is proportional to the albumin concentration.

**Creatinine:** creatinine in urine reacts with the dye - palladium complex. Due to the decomposition of the complex, the blue-green part on the test pad is discolored and turns yellow. The color intensity of discolored blue-green is proportional to the creatinine concentration.

Albumin/Creatinine ratio

Unit: mg/g, Cr [Albumin (mg/L)/Creatinine (mg/dL)] x 100

Albumin (mg/L)	Creatinine (mg/dL)				
	10	50	100	200	300
10	Retest				Normal
30			+ 1		
80	+ 2				
150					



AUTION Sticks 10PA (urine test strips for visual check/device)

High precision measurement of protein in spot urine is possible.

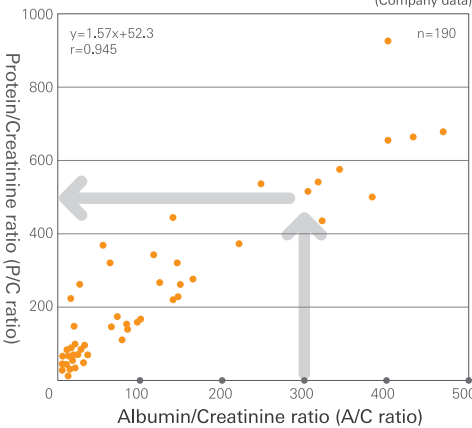
Correct protein measurement results may not have been obtained during previous urinalyses that used spot urine samples.  
Thanks to AUTION Sticks 10PA, it became possible to perform high precision screening of kidney disease with spot urine via creatinine correction.

Protein/Creatinine ratio

Unit: mg/g, Cr [Protein (mg/dL)/Creatinine (mg/dL)] x 1,000

Protein (mg/dL)	Creatinine (mg/dL)				
	10	50	100	200	300
NEG.	Retest				Normal
15			+ 1		
30					
100		+ 2			
300					
1000					

Relationship between P/C ratio and A/C ratio in the quantitative method



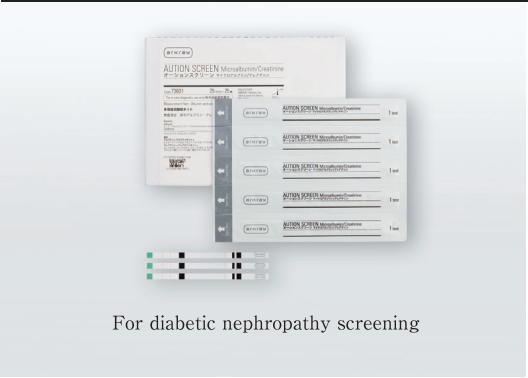
Test strips	Measurement items											
	Glu	Pro	Bil	Uro	pH	S.G.	Bld	Ket	Nit	Leu	Cre	Alb
AUTION SCREEN Microalbumin/Creatinine*											●	●
AUTION Sticks 10PA*	●	●	●	●	●		●	●	●	●	●	
AUTION Sticks 10EA	●	●	●	●	●	●	●	●	●	●		
AUTION Sticks 9EA	●	●	●	●	●	●	●	●		●		
AUTION Sticks 8EA	●	●	●	●	●		●	●	●			
AUTION Sticks 7EA	●	●	●	●	●		●	●				
AUTION Sticks 6EA	●	●		●	●		●	●				
AUTION Sticks 5EA	●	●		●	●		●					
AUTION Sticks 4EA	●	●			●		●					

\*AE-4020 can identify these 2 types of test strips automatically.

Specifications	
Sample	Urine
Measurement items	GLU, PRO, BIL, URO, KET, pH, NIT, BLD, LEU, Specific Gravity, color tone, ALB, CRE (calculation items: ALB/CRE ratio, PRO/CRE ratio)
Measurement wavelength	4-wavelength LED (430, 565, 635 and 760 nm)
Measurement method	Dual-wavelength reflection photometric method (single wavelength for BLD)
Test strips	AUTION Sticks series AUTION SCREEN Microalbumin/Creatinine
Reaction time	60 seconds
Processing speed	514 samples per hour (maximum processing mode: 7-second interval)
Memory capacity	520 measurement results
Display	Custom LCD display (icons)
Printer	Thermal printer (58 mm width)
External output	RS-232C, Ethernet (optional)
Operating environment	Temperature: 10 to 30°C; Humidity: 20 to 80% R.H. (non-condensing)
Measurement environment	Temperature: 10 to 30°C; Humidity: 30 to 60% R.H. (non-condensing) *Temperature correction function used
Power supply	AC100 to 240V, adapter
Power consumption	45VA
Barcode unit	External hand-held type (RS-232C specification)
Dimensions	210 (width) x 328 (depth) x 164 (height) mm
Weight	3.6kg
Registration number	25B1X00001000024
Classification	Class I (General medical devices)/Controlled medical devices requiring special maintenance

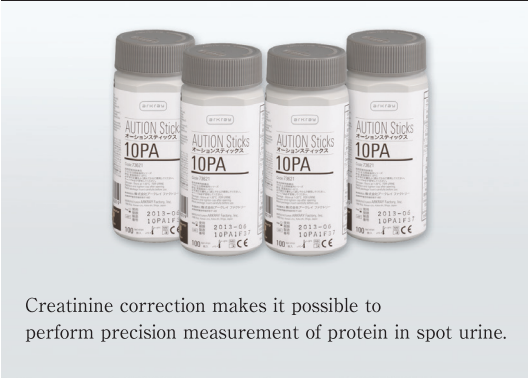
Reagent for testing albumin and creatinine in urine

AUTION SCREEN    Microalbumin/Creatinine



Urine test strips for visual check/device

AUTION Sticks 10PA



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