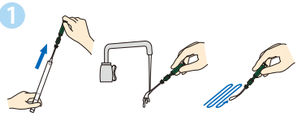
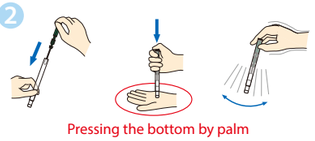
Instructions for LuciPac A3 Surface

Allow LuciPac to reach room temperature (20~25℃,20minutes) before use.



Moisten the swab with tap water*1, then swab the sample*2.



Insert the swab back into the main body, then push it down. Shake until the liquid reagent slides down and dissolve powdered reagent.

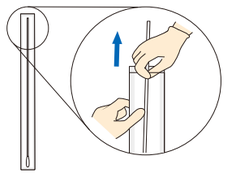
Hold the device upright while the measurement is made.

Insert the LuciPac into the chamber of Lumitester to make a measurement. Remove the LuciPac from the Lumitester when the measurement is completed.

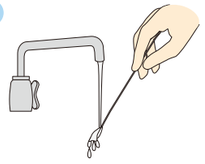
*1 Do not use Saline. *2 Measurement results may not be valid if there is disinfectant such as alcohol or detergent remaining on the surface.

Instructions for LuciSwab

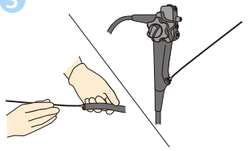
Allow LuciPac to reach room temperature (20~25℃,20minutes) before use.



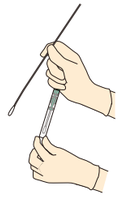
Wear the powder free gloves,then tear open a package.Take out the LuciSwab carefully trying not to touch the other areas.



Moisten the LuciSwab with tap water*1.

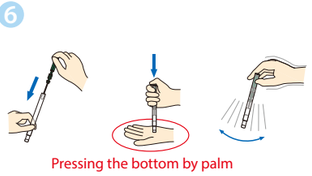


Insert the LuciSwab into the test object as far as it can reach,then swab the sample*2.

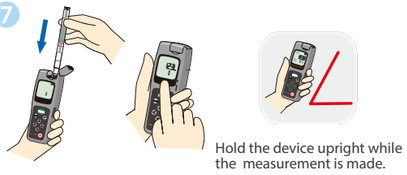


Holding the LuciSwab at 12~13cm distant point from its cotton bud, remove the swab from LuciPac.

Insert the LuciSwab into the main body of the LuciPac,then wash LuciSwab in releasing reagent. Be careful not to break the aluminum seal.



Remove the LuciSwab and insert the swab back into the main body, then push it down. Shake until the liquid reagent slides down and dissolve powdered reagent.



Hold the device upright while the measurement is made.

Insert the LuciPac into the chamber of Lumitester to make a measurement. Remove the LuciPac from the Lumitester when the measurement is completed.

*1 Do not use Saline. *2 Measurement results may not be valid if there is disinfectant such as alcohol or detergent remaining on the surface.

Lumitester PD-30 **Product Code : 60486**

Measurement time	10 seconds.
Data output	Relative Light Unit(RLU)
Power	Two AA alkaline or nickel hydride rechargeable batteries
Accessories	Two AA alkaline batteries, cleaning brush, USB cable, strap, Quick Manual, CD-ROM, stand-up soft case

※Lumitester is not a medical device.
※Make sure to remove the LuciPac A3 Surface from the Lumitester when measurement is completed. If the Lumitester is stored while the LuciPac A3 Surface is left in the instrument, fluid of LuciPac A3 Surface may leak out and damage the instrument.

*Do not use this product for purposes other than hygiene monitoring.
*It is not to be used for counting general living bacteria or detecting specific pathogens.

Manufacture and Sales

kikkoman

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105-0003 JAPAN
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LuciPac A3 Surface **Product Code : 60361 100 sticks/kit**

LuciPac A3 Water **Product Code : 60365 100 sticks/kit**

Storage condition	2-8℃(Do not freeze) 14days at 25℃(when pack has not been opened) 5days at 30℃(when pack has not been opened)
Expiry	15months after manufacturing date

*Use LuciPac A3 for Lumitester PD-20 or PD-30. Do not use it for other models.

LuciSwab 2.8-400 **Product Code : 60343 100 sticks/kit**
Swab Size (Diameter×Length) 2.8mm×400mm

LuciSwab 3.2-400 **Product Code : 60344 100 sticks/kit**
Swab Size (Diameter×Length) 3.2mm×400mm

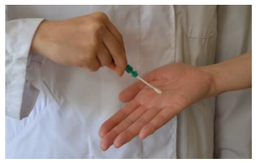
Storage condition	Store at room temperature preventing from high temperature and humidity

*Use in combination of LuciSwab and LuciPac. Other commercial cotton and reagent may not generate accurate results.
*Do not use LuciSwab for the area narrower than swab diameter. Otherwise, the cotton bud might fall off or be stuck in.

The world's first ! ATP+ADP+AMP Hygiene Monitoring System (A3 Assay)

Do you have confidence in Hygiene standards?

Lumitester™ PD-30
LuciPac™ A3 Surface
LuciSwab



Hand-washing training

Evaluation for environmental hygiene

Cleaning evaluation for stainless steel instruments

Cleaning evaluation for gastrointestinal endoscopes

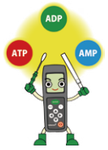
For infection control in hospitals !

For significant improvements in cleaning !

New release
LuciPac™ A3 Surface

LuciSwab

Lumitester™ PD-30

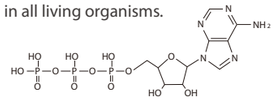


The Principle of ATP+ADP+AMP Detection

Kikkoman has developed ATP+ADP+AMP detection technology by utilizing brewing technique of soy sauce.
Kikkoman's own ATP cycling method allows you to detect not only ATP but also ADP and AMP have been overlooked.

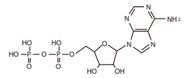
What is ATP?

ATP(adenosine triphosphate)is the primary molecule involved in metabolism in all living organisms.

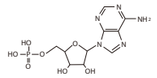


What is ADP,AMP?

ADP(adenosine diphosphate) and AMP(adenosine monophosphate) are drived from ATP during the processing, such as heat treatment and fermentation.



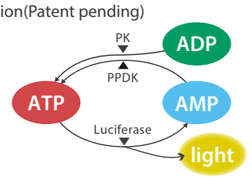
adenosine diphosphate



adenosine monophosphate

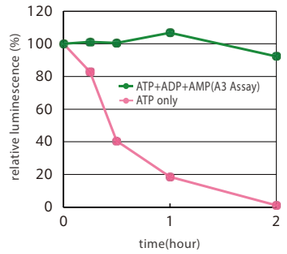
ATP cycling method

This kit utilizes Kikkoman's own biotechnology "ATP cycling method".Ultrahigh sensitivity is attained with ATP plus ADP, AMP detection(Patent pending)



ATP Synthase	PK: Enzyme for the conversion of ADP to ATP PPDK: Enzyme for the conversion of AMP to ATP
Luciferase	Enzyme for producing light in the presence of ATP

ATP is decomposed by hemolysis



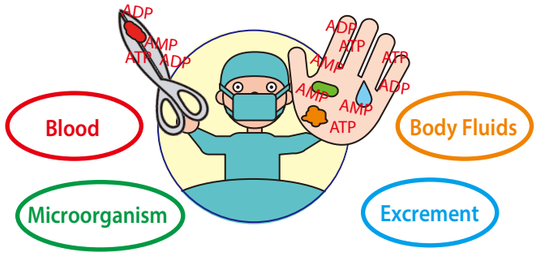
An accurate detection is made by A3 Assay,even if ATP is decomposed to ADP or AMP by hemolysis.

What is ATP+ADP+AMP Hygiene Monitoring System?

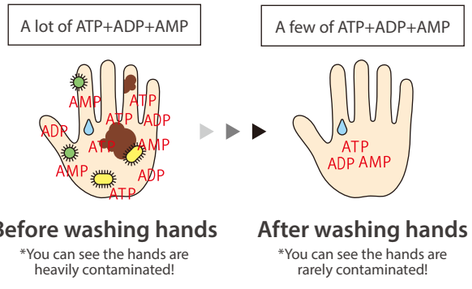
The ATP+ADP+AMP hygiene monitoring system is used to measure the amounts of ATP,ADP,AMP.

ATP,ADP,AMP are present in contaminants of medical facilities (blood, body fluids, excrement,microorganism).
If the level of ATP,ADP,AMP is high, the cleaning is considered insufficient; If the level is low, the cleaning is considered adequate.

Contaminants in medical facilities contain ATP,ADP,AMP



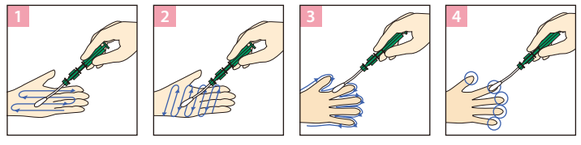
You can check the cleanliness by the amount of ATP,ADP,AMP



Hand hygiene

Test locations, benchmark values and swabbing methods (examples)

Test locations	Benchmark values (RLU)	Swabbing methods
▶ Hands and fingers		
Palm(dominant hand)	2000	Swab the entire palm of the hand over 5-10passes in the left-to-right and up-to-down directions as well as between fingers and the tips of fingers



Hand-washing is the best defense against infection in hospitals ! A3 makes hand-washing training much more impressive!

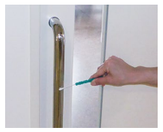
Evaluation for environmental hygiene

Test locations, benchmark values and swabbing methods (examples)

Test locations	Benchmark values (RLU)	Swabbing methods
▶ nurses' station		
Cart	(temporary) 500	Swab the entire surface of each arm
Stethoscope	(temporary) 500	Swab the entire surface of the chest piece
Sphygmomanometer pump	(temporary) 500	Swab the entire surface of the pump
IV pole	(temporary) 500	Swab the entire surface of the handle
Phone receiver	(temporary) 500	Swab the entire surface of surface (inner and outer side)
PC keyboard	(temporary) 500	Swab the entire surface
PC mouse	(temporary) 500	Swab the entire surface
Refrigerator(handle)	(temporary) 500	Swab the entire surface of the handle (inner and outer side)
▶ Hospital ward		
Overbed table	(temporary) 500	Swab each corner and a 10cm by 10cm area at the center in all directions
Door handle	(temporary) 500	Swab the entire surface of the handle
Bed side rails	(temporary) 500	Swab 10cm-wide areas at the three spots (left and right side,center) of the top of the side rails
Nurse call button	(temporary) 500	Swab the entire surface of the button
Remote control	(temporary) 500	Swab the entire suface of the remote control
▶ Medical Equipment		
Touch panel	(temporary) 500	Swab a 10cm by 10cm area frequently touched

Evaluation for environmental hygiene focuses on those areas frequently touched by hands, where have high possibility of cross-infection ! It's helpful to improve the cleaning performance !

Bed side rails



Door handle

Remote control

PC

Cart

Touch panel

▶ **How to determine the test locations** It is recommended to check the cleanliness level after cleaning. The areas easily contaminated or difficult to wipe out are good candidates for testing.

Reusable medical instruments and devices

Test locations, benchmark values and swabbing methods (examples)

Test locations	Benchmark values (RLU)	Swabbing methods
▶ Stainless steel instruments		
Parts with uneven surfaces, box locks, and similar parts	(temporary) 100	Swab the surfaces of areas other than those touched by hands
Devices and parts with complicated designs	(temporary) 100	Swab the surfaces of areas other than those touched by hands
▶ Gastrointestinal endoscope		
Biopsy channel	(temporary) 100	Swab as far as a cotton swab can be inserted. Thoroughly swab the entire inner suface of each channel while turning the cotton swab around
Suction channel	(temporary) 100	
Air and water channels	(temporary) 100	
Endoscope tip	(temporary) 100	Thoroughly swab the entire surface of the lens and the area extending approx.1cm on the outer sides from the tip
Inner side of biopsy channel (LuciSwab+LuciPac)	(temporary) 100	• Insert the swab into biopsy port and swab the sample • Insert the swab into endoscope tip and swab the sample
▶ Dialysis room		
Coupler	(temporary) 100	Swab the connectors

It's recommended to test after cleaning (in the dried state) !

Its recommended to test after cleaning by hands !

Biopsy port

Inside of biopsy channel

Evaluate coupler of dialysis machine

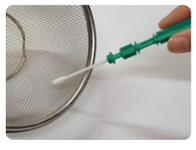
Kitchen

Test locations, benchmark values and swabbing methods (examples)

Test locations	Benchmark values (RLU)	Swabbing methods
▶ Kitchen		
Kitchen knife	200	Swab the entire surface of the blade on both sides and the knife bolster
Peeler	200	Swab the edges of the peeler blade
Ladle	200	Swab the entire surface of the ladle except for the handle
Cutting board	500	Swab a 10cm by 10cm area at the center in the left-to right and up-to-down directions
Colander	200	Swab a 10cm by 10cm area at the center in the left-to-right and up-to-down directions and also make a pass around the inside of the top edge
Faucet	200	Swab the entire surface of the handle of the faucet
Sink	200	Swab the four corners of the sink
Handle	200	Swab the entire surface of the handle
Food preparation table	200	Swab a 10cm by 10cm area at the center in both the left-to-right and up-and-down directions
▶ Hands and fingers		
Kitchen knife	2000	Swab the entire palm of the hand over 5-10passes in the left-to-right and up-to-down directions as well as between fingers and the tips of fingers

Food poisoning is one of hospital acquired infections! The main cause of food poisoning is secondary contamination due to inadequate cleaning!

Assess cleanliness of kitchenware with ATP+ADP+AMP hygiene monitoring system !



- The ATP swab test were printed in the Food Sanitation Inspection Guidelines,Microbilogy Volume 2004(released under the supervision of Japan's ministry of Health,Labour and Welfare).
- The ATP swab test is the first step toward attaining HACCP.