Find what others can't - better detection equals better "protection"

QUALITY SOLUTIONS BY

WEBER SCIENTIFIC

Introducing the Lumitester™ Smart

The Lumitester™ Smart offers high sensitivity detection and wireless connection capabilities.

ATP+ADP+AMP with A3 Detection

MEASURE:
Easy-to-use, results within 10 seconds

Step 1: Swab | Swab the sample and insert the swab into main body

Step 2: Measure | Shake well and insert into the Lumitester

Step 3: Analyze | Measurements (RLU) displayed within 10 seconds

UNDERSTAND:
App to continuously monitor multiple data

Recorded data can be easily displayed in time-series by registering with their specialized App. Inspection pass rates are automatically graphed and improvements can be visualized. Employees will be more conscious of hygiene, and will maintain a high standard of environmental sanitation, which will help build greater trust in your business.

CONNECT:
Centralized multi-site data with cloud data management

Data will be stored in the cloud and can be accessed from anywhere in the world. This will allow fast detection and response to any problems that may arise.

Now AOAC Approved

PERFORMANCE TESTED
AOAC
RESEARCH INSTITUTE
LICENSE NUMBER 051901

For a Sanitary Environment in All Workplaces

Hygiene monitoring in three easy steps

Visualize the data with the App

Access from anywhere with cloud storage

Ultra sensitive detection of food and micro-biological residues in 10 seconds with wireless connection

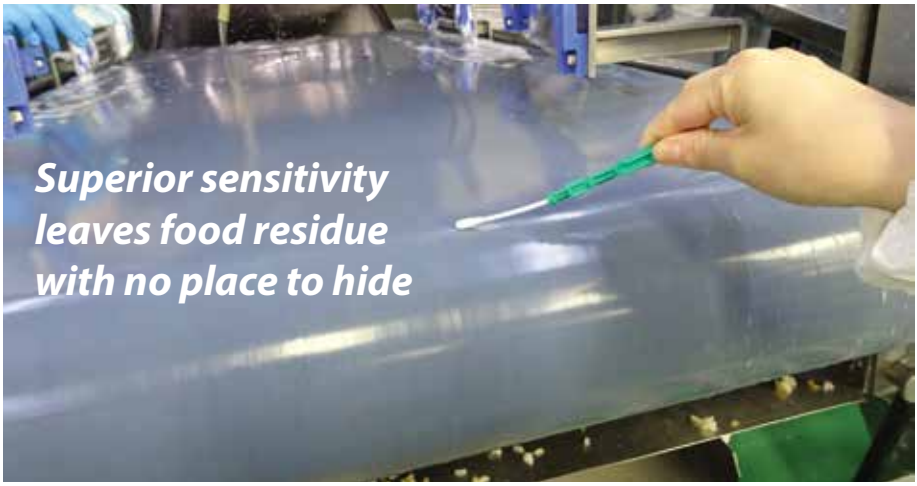
The Lumitester™ Smart measures the hygienic status of a particular area in seconds with on-site detection of both microorganisms and organic residues. It can be used with both the LuciPac A3 surface swabs and the LuciPac A3 water swabs, providing rapid detection of food and microbiological residues left behind. A quantitative determination of ATP, ADP + AMP is performed in the instrument. With the addition of AMP and ADP included in the chemistry, the ATP signal becomes more stable allowing for greater sensitivity compared to other devices.

Sample plans from the Lumitester™ Smart are easily set up, recorded and analyzed using the application with a smart phone, tablet or PC with easy accessibility using cloud storage.

Benefits

- Consistent results and higher sensitivity, detects not only ATP, but also ADP and AMP
- Fast, simple, safe, precise and easier to use than conventional tests – 10 seconds
- Advanced chemistry produces superior detection to uncover all levels of contaminants
- Rapid on-site verification of sanitation processes and can be used as on-site improvement tool
- Easy to determine pass or fail as the result is displayed in numeric value
- Manage the data results easily with the App
- Access from anywhere with cloud storage

A3 Sanitation System

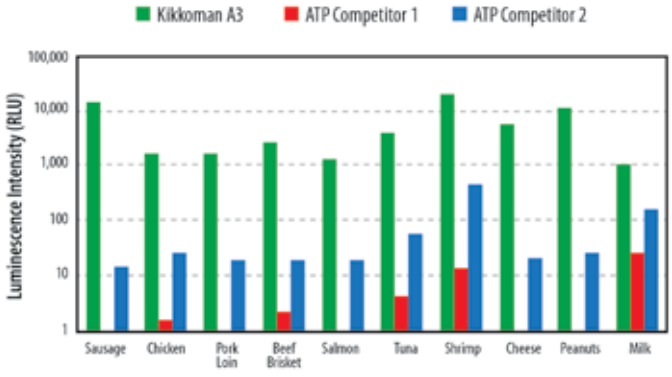


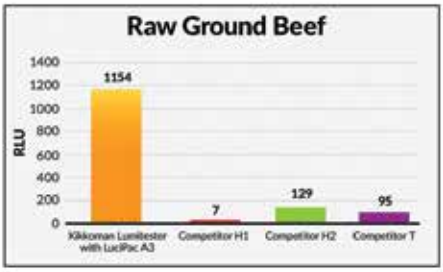
Detection - LuciPac A3 vs. Competitors

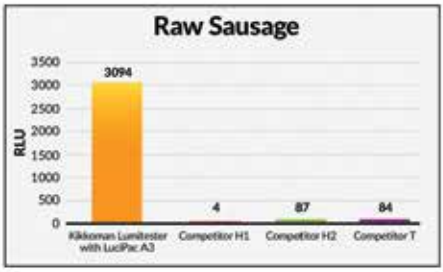
ATP in meat and food is decomposed into ADP and AMP during processing, increasing levels of ADP and AMP. The LuciPac A3 showed superior sensitivity and stability for detection of food residues compared to competitive ATP tests.

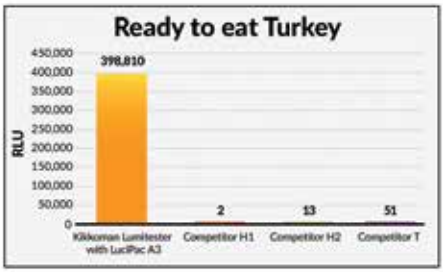
Contact us to find out what you've been missing and receive our FREE white paper.

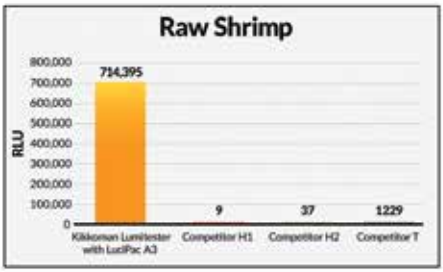
A3 vs COMPETITORS IN FOOD

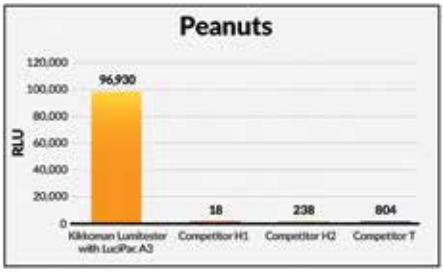


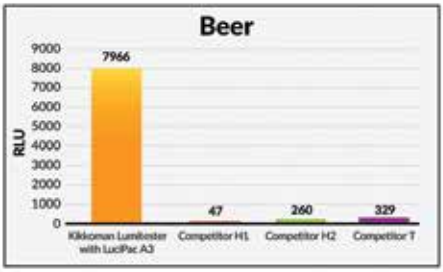


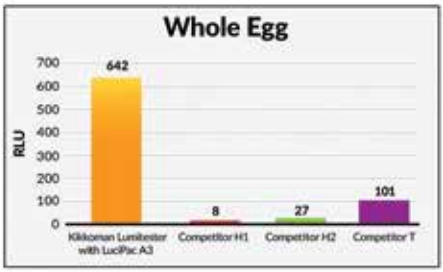


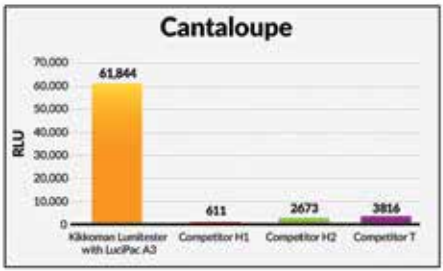










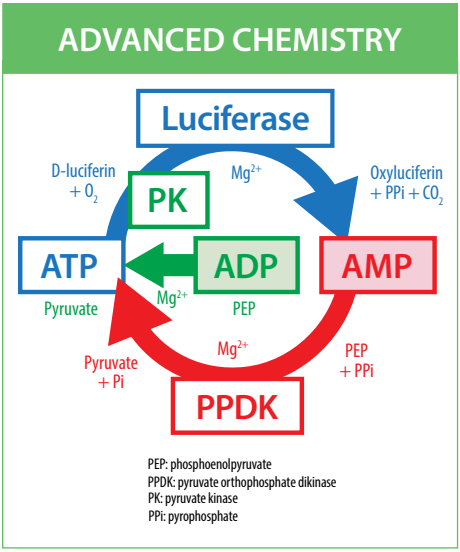


The target foods were homogenized and diluted 100-fold, then aliquots of 10 µl of each dilution were pipetted onto the appropriate swabs and measured.

A3 Sanitation System

The proof is in the testing

Independent laboratory testing confirms that the Kikkoman A3 technology provides detection of residues at levels much lower than other tests on the market. Using residue from many different foods, laboratory testing proved that Kikkoman A3 technology produced a test result (relative light units - RLU) an order of magnitude or higher than competitive products. In many of the foods tested, Kikkoman A3 technology showed a strong presence of residue while the competitive products produced test results below typical action levels showing that Kikkoman A3 can reduce the risks from false negative results.



Eliminate Contamination

Sanitation is critical to food safety and ineffective cleaning can affect the appearance and taste of food, harbor microorganisms and promote the production of biofilms. So, if your sanitation system only detects ATP, you're missing potential contaminants.

ATP can be unstable and decompose into ADP and AMP. This means conventional systems that test for ATP alone may fail to find the true presence of contamination and may produce false negatives. Only the breakthrough chemistry in Kikkoman A3 technology detects ATP, ADP and AMP - more than any other product out there.

Independent testing by a leading laboratory confirms that the Kikkoman A3 technology detects food residues left behind at far lower levels than other tests on the market. Assure better surface sanitation and support a more effective sanitation program that reduces the presence of resident organisms and the risks from food pathogens.

A3 Sanitation System

Features

- Highly cost effective sanitation monitoring
- Provides real-time feedback and facilitates long-term data analysis
- Optimizes and verifies that cleaning procedures are working
- Assists in developing and improving process and risk assessment programs (i.e. HACCP & GMPs)

Specifications

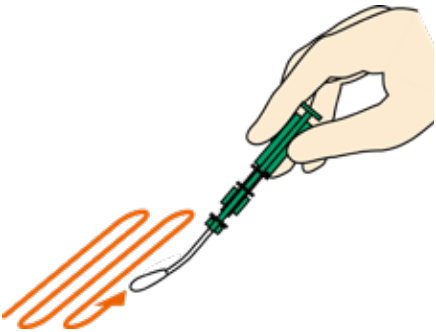
- Wireless connection to a smartphone or tablet (Android/iOS) via Bluetooth. For PC (OS: Windows 7 or 10), the software for Windows connects via USB cable.
- Powerful software includes:
  - Free "Lumitester" app.
  - Manage test points, benchmark values and groups.
  - Several functions including measurement can be operated.
  - Result data can be stored in the cloud.
  - Data trend graph and pass rate chart can be confirmed as data analysis.
  - Result data can be shared in remote sites.
  - Test point information can be transferred into the Lumitester Smart unit via the app for standalone use. Two types of test modes are available.
  - Each email address can be used to create one account.
  - 1000 test points can be set in the app for each account. 200 test points can be transferred to the Lumitester™ Smart unit for standalone use.
  - 100 plans can be created in the app for each account. 20 plans can be transferred from the app to the Lumitester™ Smart.
- No scheduled yearly maintenance necessary.
- Available Calibration Control Kit for in-house verification of calibration.
- Small, lightweight, handheld instrument (0.56 lb., 6.5 x 17.5 x 3.2 cm).
- Standard mode enables ad-hoc testing.
- Powered by 2, AA batteries for several months of uninterrupted use.
- Durable outside shell and sealed keypad to protect against splashes and wear.
- Original one year warranty includes parts and labor.

A3 Sanitation System

Measurement Principles

ATP is a source of energy necessary for various forms of life that are present in organic residues, such as microorganisms, food residue, and biological substances that originate from other living organisms. This monitoring system allows you to measure and detect organic residues at high speed and high sensitivity by detecting ATP (adenosine triphosphate) using luciferase, which is why it is widely used in determining cleanliness levels in food manufacturing facilities. However, conventional ATP monitoring systems are insufficient because ADP (adenosine diphosphate) and AMP (adenosine monophosphate) generated from ATP degradation are completely overlooked. Kikkoman developed this new and patented monitoring system. This method definitely enables highly sensitive analysis of a wider range of organic residues.

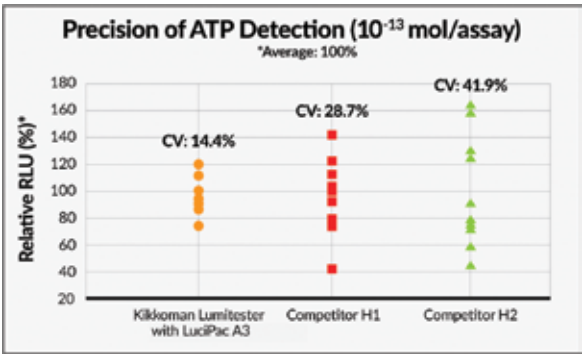
Measure Methods



1. The swab devices should be allowed to reach room temperature prior to testing, if they are from refrigerated stock.
2. Remove the swab stick from the casing.
3. **NOTE: If running the test on a dry subject, first moisten the swab or the test subject with tap (or deionized water for consistency)[1].**
4. Use the swab with consistent pressure.
5. Return the swab stick to the casing and push all the way into the main body.
6. Allow the leftover luminescent reagent to thoroughly dissolve.
7. Insert the swab into the Lumitester™ to measure the results.

[1] Regular tap water may contain a slight amount of ATP, ADP and AMP. It is recommended to wash or otherwise clean off the faucet in such cases and allow the water to run for a while before collecting for use. Alternatively, use deionized water.

The Repeatability of Measurements



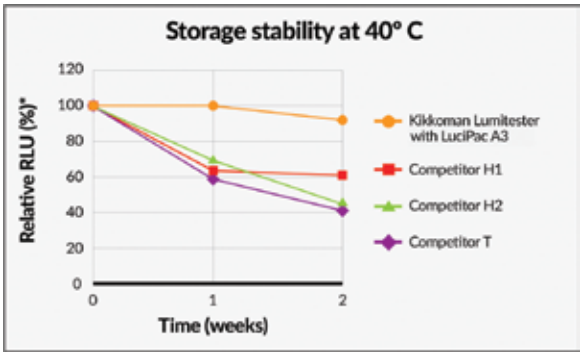
The Lumitester™ with LuciPac A3 swab demonstrated superior repeatability relative to competitors even at the low level of ATP (10-13 moles ATP/assay).

ATP detection was assessed for each device by pipetting 10 µL of the 10-8 M stock ATP solution (10-13 moles ATP/assay) onto the appropriate swabs (n=10).

Swab Storage

Store at cool temperatures (36° - 46°F / 2° - 8°C) for long term storage. The kits can be stored below 77°F / 25°C for up to 14 days or below 86°F - 30°C for up to five days before opening an aluminum bag, without any adverse effect on the long term stability. Do not freeze the kits.

Storage Stability



The RLU of LuciPac A3 was decreased only 8% after extreme storage at 40ºC for 2 weeks.

Each device was stored at 4ºC and 40ºC respectively, the sample stored at 4ºC served as a control (100 RLU). 10 µL of the 10-7 M stock ATP solution (10-12 moles ATP/assay) was used for evaluations.

Precautions

1) This kit cannot be used to test food or food products directly.
2) Set the benchmark level at which the required cleanliness levels can be obtained. If the benchmark level is not set correctly, cleanliness levels may not be evaluated correctly.
3) See storage recommendations.