HUMAN HEALTH

ENVIRONMENTAL HEALTH

BETTER SOLUTIONS FOR GREATER PEACE OF MIND

Analytical solutions to ensure Halal food integrity.

PerkinElmer®
For the Better

THOROUGHLY TESTED. COMPLETELY TRUSTED.

With the growing Muslim population, the ability to provide safe and nutritious food is a global concern. In addition to being free from forbidden components such as pork and alcohol, food needs to be healthy and nutritious for halalan toyyiban. Consumers should be confident that every aspect of their food, including the ingredients, processing and handling, is done meeting requirements. Thus, there is a need for reliable testing to help ensure peace of mind for everyone from manufacturers to certification bodies to consumers. PerkinElmer's advanced technology can help in this effort. Our instrumentation offers unmatched detection limits, while our screening detection kits offer quick, reliable results, efficiency and ease of use from the world's most trusted leader in food analysis.

On the Forefront of Food Analysis

PerkinElmer has been developing analytical instrumentation for more than 70 years and is respected around the globe for high-quality products backed by service and support. With a number of firsts in the market, including the first commercial infrared (IR), gas chromatograph (GC), atomic absorption spectrometers (AAS), high performance liquid chromatography (HPLC) system, and inductively coupled plasma mass spectrometer (ICP-MS), PerkinElmer has shown commitment to the development of the technologies required for the measurements laboratories need to make.

Our latest introductions of new models and new technologies, for example the NexION® 300 ICP-MS, AxION™ 2 time of flight (TOF) mass spectrometer (MS), and Clarus® SQ 8 gas chromatograph mass spectrometer (GC/MS), demonstrate continued commitment to the market to further develop technology to improve laboratory capability and productivity. Our expanding informatics portfolio offers increased software power to integrate the laboratory for further productivity.

Ensuring Safer, Healthier Halal Food

Some of the types of analytical instruments provided by PerkinElmer, and already used in food laboratories for halalan toyyiban measurements, include:

Headspace-GC

Detection of alcohol in food and beverages

TOF MS

Determination of the type of pesticide and residue amount in raw or cooked foods

ICP-OES or ICP-MS

Measurement of metal contamination in foods, such as lead, arsenic or mercury

GC/MS

Analysis of finished products for melamine and other adulterants

FT-IR

Documented identification of raw materials

HPLC or UHPLC

Analysis of aflatoxins in nuts and seeds

In addition to keeping food safe, measurements can help ensure the development of healthier foods:

- Chromatography instruments to measure vitamins and nutrients
- Thermal analysis and infrared instrumentation to characterize food properties and detect differences from previous lots, ensuring conformance
- Measurements of potential radioactive contamination with liquid scintillation counters warns against inadvertent exposure
- LIMS and electronic notebooks, moving toward the paperless laboratory and keeping data organized and safe

Porcine Detection Kits for Quick, On the Spot Results with High Sensitivity

Adding to the technologies currently available for food analysis, PerkinElmer now offers two breakthrough Porcine Detection Kits to provide rapid screening for pork that may be present in other types of meat. This provides on-the-spot testing for processed or raw meat, and provides quick results with high sensitivity, before sending samples to the lab. With religious requirements adding an additional layer of surveillance and concern, certifying agencies, contract laboratories, and food manufacturers will find this helpful in assessing the purity of meat products.

Table 1 describes the characteristics of the kits in more detail. The kit is a screening kit so a "positive" or "negative" result is the goal. The kit does not provide a numerical concentration of the pork contamination that might be observed. A test using an alternative technology may be used as a confirmation when a positive test result is obtained.

Table 1. Porcine Detection Kits Characteristics	
Detection Time	Approximately 15-25 minutes per test cycle
Technology	No instrumentation or calibration required—antibody detection based technology
Operation Costs	Does not have any consumables and parts to maintain
Sensitivity	0.5% pork in processed meat and 0.05% pork in raw meat yields a positive result
Operator Skill Required	Very simple operation—self trained by following operating instructions

Fast, Simple and Sensitive

The Porcine Detection Kit is fast and simple to use, and when coupled with laboratory-based technologies, can provide a more rapid characterization of a product for compliance with Halal requirements.

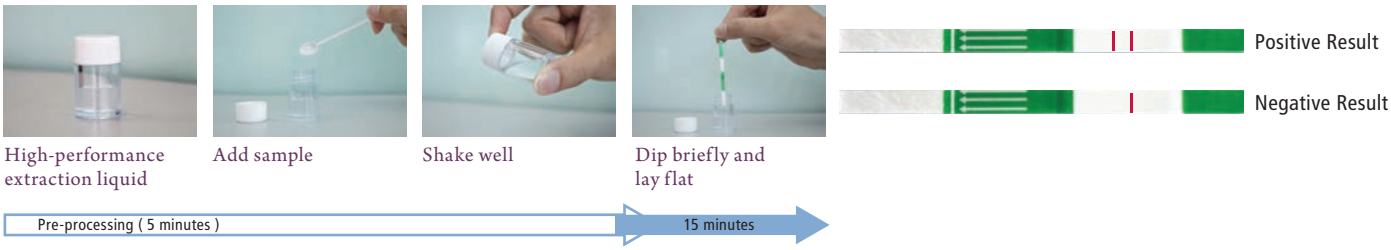

Figure 1. Demonstration of the Porcine Detection Kit in use.

Whether you're a food manufacturer or Halal food licensing authority, you can trust PerkinElmer for instruments and technologies that help deliver safe, healthy Halal food time and time again.

PerkinElmer, Inc.
940 Winter Street
Waltham, MA 02451 USA
P: (800) 762-4000 or
(+1) 203-925-4602
www.perkinelmer.com

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