



*Integrated Solution for Halal Food Testing*

**Assuring  
Safer  
And  
Healthier  
Halal  
Food**



## Improve reliability & integrity of Halal food

“Halal” is an Arabic word meaning lawful or permissible in accordance to Islamic law. *Halalan toyyiban* food means any food which is not harmful and safe to be consumed as underlined by the *Syariah* law. Food safety is one of the key determinants in assuring *halalan toyyibban* which resembles wholesome (safe, clean, nutritious, quality) aspects of the food. Besides being free from forbidden ingredients such as pork and alcohol, food must be healthy, nutritious and of good quality for compliance to *halalan toyyiban*.

With the increasing population of Muslim population which is currently accounts for quarter of world’s population, the capability to offer safe and wholesome food is a global concern. Most consumers are unaware that animal-by-products and harmful ingredients are used by food manufacturers as additives and ingredients. The demand for reliable Halal food analysis has been emerging among consumers, manufacturers, certification bodies and regulators to help ensuring every aspect of food, including ingredients, processing and handling is in accordance to Halal requirement.

## Porcine detection up to ingredient level

**PorcineTrace Detection Kit** product line comprises full-fledged products covering rapid test kits, ELISA kits, PCR kits and real-time PCR kits with different specification of detection limits and assay time to meet different requirement of end-users to access Halal food integrity for different matrices including raw meat, processed meat/ canned food, gelatin, fat/oil, blood and blood derivatives as well as surface swab.

We are committed to provide latest technologies and reliable testing solution with improved efficiency in assessment of Halal food integrity. **All testing kits from ProcineTrace product line are validated by ISO17025 accredited laboratory, to ensure the highest level of quality standards are met from batch to batch.**

## Target users

- Halal Certification Bodies
- Halal Auditors
- Food/Food Ingredients Manufacturer
- Food Testing & QC Laboratories
- Food Traders
- Pharmaceutical & Cosmetic Industries
- Logistic Industries
- Researchers/ NGOs



## PorcineTrace Detection Kits Quick Selection Guide

	PorcineTrace Rapid Test Kit	PorcineTrace ELISA Kits	PorcineTrace PCR Kits	PorcineTrace Real-time PCR Kits
Duration	Approx. 15-30 minutes	Approx. 4 hours*	Approx. 3-4 hours*	Approx. 2-3 hours*
Technology	Lateral flow immunochromatographic assay	Indirect Sandwich ELISA assay	Multiplex PCR assay	Duplex qPCR assay
Sample Preparation	Very simple and direct	Fairly easy sample preparation skill	DNA extraction skill required	DNA extraction skill required
Operation Cost	No instrumentation, parts & consumables required	ELISA reader & washer, reagents & consumables, maintenance & calibration costs for ELISA reader & washer	PCR instrument, reagents & consumables, maintenance & calibration costs for PCR instrument required	Real-time PCR instrument, reagents & consumables, maintenance & calibration costs for qPCR instrument required
Operator Skill	Easy operation – self training by following operating manuals	Skilled laboratory personnel required	Skilled laboratory personnel required	Skilled laboratory personnel required

Note: Subject to technical changes. \* Time indicated including sample preparation time

### PorcineTrace Rapid Test Kits

PorcineTrace Rapid Test Kits are designed for fast screening of pork in raw meat, processed meat/canned food, fat/oil, gelatin, blood and blood derivatives as well as surface swab, prior sending samples to the laboratory for confirmation tests.

#### Key Features

- Rapid screening to detect presence of pork on-the-spot
- Quick, easy-to-use and cost-effective without expensive tools
- Able to test on wide variety of food matrices from raw meat to highly processed food samples
- Highly specific and sensitive
- Does not cross react with non-pork food samples
- Able to detect heat-resistant protein (up to 132°C)



### Ordering Information

Product Code	Description	Pack Size
RHAL01-01-020	PorcineTrace Rapid Test Kit-Raw Meat	20 tests/ kit
RHAL01-02-020	PorcineTrace Rapid Test Kit-Processed Meat/ Canned Food	20 tests/ kit
RHAL01-03-020	PorcineTrace Rapid Test Kit-Fat/Oil	20 tests/ kit
RHAL01-04-020	PorcineTrace Rapid Test Kit-Blood and Blood Derivatives	20 tests/ kit
RHAL01-05-020	PorcineTrace Rapid Test Kit-Gelatin	20 tests/ kit
RHAL01-06-020	PorcineTrace Rapid Test Kit-Surface Swab	20 tests/ kit

### PorcineTrace ELISA Kits

PorcineTrace ELISA Kits provide an excellent methodology to detect porcine antigen in food samples in various matrices ranging from raw meat, processed meat/canned food, fat/oil, gelatin, blood & blood derivatives based on sandwich enzyme-linked immunosorbent assay (ELISA).

#### Key Features

- Able to detect heat-resistant protein (up to 132°C)
- Higher specificity with the use of monoclonal antibodies
- Higher specificity & sensitivity with deployment of sandwich ELISA method
- Up to 45 tests in duplicate per kit

### Ordering Information

Product Code	Description	Pack Size
EHAL01-01-096	PorcineTrace ELISA Kit-Raw Meat	96 tests/ kit
EHAL01-02-096	PorcineTrace ELISA Kit-Processed Meat/ Canned Food	96 tests/ kit
EHAL01-03-096	PorcineTrace ELISA Kit-Fat/ Oil	96 tests/ kit
EHAL01-04-096	PorcineTrace ELISA Kit-Blood and Blood Derivatives	96 tests/ kit
EHAL01-05-096	PorcineTrace ELISA Kit-Gelatin	96 tests/ kit



## PorcineTrace PCR Kits

PorcineTrace PCR Kits are multiplex PCR kits that are optimized to perform amplification of porcine DNA with internal and external control included in a single reaction.

### Key Features

- Detection of porcine specific DNA based on multiplex PCR assay
- DNA Extraction Kit is available (optional)
- Internal control and external control are included
- 100% specificity & sensitivity



### Ordering Information

Product Code	Description	Pack Size
PHAL01-050	PorcineTrace PCR Kit	50 tests/ kit
PHAL01-100	PorcineTrace PCR Kit	100 tests/ kit
CPHAL01-050	PorcineTrace PCR Kit with PorcineTrace Food DNA Extraction Kit	50 tests/ kit
CPHAL01-100	PorcineTrace PCR Kit with PorcineTrace Food DNA Extraction Kit	100 tests/ kit
CPHAL02-050	PorcineTrace PCR Kit with PorcineTrace Oil DNA Extraction Kit	50 tests/ kit
CPHAL02-100	PorcineTrace PCR Kit with PorcineTrace Oil DNA Extraction Kit	100 tests/ kit
CPHAL03-050	PorcineTrace PCR Kit with PorcineTrace Gelatin DNA Extraction Kit	50 tests/ kit
CPHAL03-100	PorcineTrace PCR Kit with PorcineTrace Gelatin DNA Extraction Kit	100 tests/ kit
CPHAL04-050	PorcineTrace PCR Kit with PorcineTrace Fat and Lard DNA Extraction Kit	50 tests/ kit
CPHAL04-100	PorcineTrace PCR Kit with PorcineTrace Fat and Lard DNA Extraction Kit	100 tests/ kit

## PorcineTrace Real-time PCR Kits

PorcineTrace Real-time PCR Kits are duplex PCR kits that are optimized to perform amplification of porcine DNA with internal control included in a single reaction through FAM and VIC/HEC channel.

### Key Features

- Detection of porcine specific DNA based on duplex qPCR assay
- DNA Extraction Kit is available (optional)
- Internal control (universal vertebrate gene) is included
- 100% specificity & sensitivity



### Ordering Information

Product Code	Description	Pack Size
QHAL01-050	PorcineTrace Real-time PCR Kit	50 tests/ kit
QHAL01-100	PorcineTrace Real-time PCR Kit	100 tests/ kit
CQHAL01-050	PorcineTrace Real-time PCR Kit with PorcineTrace Food DNA Extraction Kit	50 tests/ kit
CQHAL01-100	PorcineTrace Real-time PCR Kit with PorcineTrace Food DNA Extraction Kit	100 tests/ kit
CQHAL02-050	PorcineTrace Real-time PCR Kit with PorcineTrace Oil DNA Extraction Kit	50 tests/ kit
CQHAL02-100	PorcineTrace Real-time PCR Kit with PorcineTrace Oil DNA Extraction Kit	100 tests/ kit
CQHAL03-050	PorcineTrace Real-time PCR Kit with PorcineTrace Gelatin DNA Extraction Kit	50 tests/ kit
CQHAL03-100	PorcineTrace Real-time PCR Kit with PorcineTrace Gelatin DNA Extraction Kit	100 tests/ kit
CQHAL04-050	PorcineTrace Real-time PCR Kit with PorcineTrace Fat and Lard DNA Extraction Kit	50 tests/ kit
CQHAL04-100	PorcineTrace Real-time PCR Kit with PorcineTrace Fat and Lard DNA Extraction Kit	100 tests/ kit

## DNA Extraction Kits

### Ordering Information

Product Code	Description	Pack Size
DHAL01-050	PorcineTrace Food DNA Extraction Kit	50 tests/ kit
DHAL01-100	PorcineTrace Food DNA Extraction Kit	100 tests/ kit
DHAL02-050	PorcineTrace Oil DNA Extraction Kit	50 tests/ kit
DHAL02-100	PorcineTrace Oil DNA Extraction Kit	100 tests/ kit
DHAL03-050	PorcineTrace Gelatin DNA Extraction Kit	50 tests/ kit
DHAL03-100	PorcineTrace Gelatin DNA Extraction Kit	100 tests/ kit
DHAL04-050	PorcineTrace Fat & Lard DNA Extraction Kit	50 tests/ kit
DHAL04-100	PorcineTrace Fat & Lard DNA Extraction Kit	100 tests/ kit