

# Detection of Animal Species in Food

## qPCR-based screening for halal compliance of food extracts



### **Outstanding Sensitivity, Reliable Results**

- qPCR-based assay for the detection of pork and donkey DNA in food-derived extracts down to a threshold level of 0.5 %.
- Combined with our optimized DNA extraction system, the qPCR assay delivers fast and consistent results for a broad range of food matrices.

### **Simple, Rapid and Monitorable Workflow**

- Internal Control DNA to monitor the performance of both DNA extraction and qPCR.
- Lyophilized and pre-aliquoted (25 reactions) components simplify logistics and storage.
- Ready-to-use products and straightforward protocols.

## Background

Meat authenticity testing in animal-derived products and food represents a serious issue from the point of view of food safety as well as from an ethical perspective, for example when food has to meet particular dietary or religious (e.g. halal) needs. Authentication of forbidden or not declared ingredients such as pork, or substandard meat (e.g. horsemeat) is essential to ensure confidence in the supply chain and regulatory compliance.

Meat ID™ Halal combined with our optimized DNA extraction system, ExtractNow™ Meat ID, provides a comprehensive system to test meat products for the presence of forbidden or not declared ingredients (e.g. pork or donkey meat) in halal-labeled food.

# ExtractNow™ Meat ID

Spin column-based DNA extraction method for a broad range of meat-derived starting materials and other food. Using a cutting-edge chemistry, the duration of the DNA purification is reduced to a minimum.

### Principle

Spin column -based separation

### Type of Sample

For extraction of genomic DNA from up to 50 mg from meat-derived starting materials and other food.

### Content

Spin filter columns, collection tubes, different buffers, proteinase K.

### Specifications

Time for extraction: approx. 45 minutes.

Average purity: 1.8 - 2.0

# Meat ID™ Halal

qPCR-based screening system for fast and reliable identification of pork and donkey in meat and other foods.

### Principle

The assay is based on the TaqMan® principle and works with FAM™ and HEX™ labeled probes.

### Target

The target sequence is a mitochondrial multi-copy gene (cytochrome b). Therefore, even very small amounts of DNA can lead to positive results.

### Content

Master mix including lyophilized Taq polymerase, nucleotides, probes, and primers for the species to be tested; Rehydration Buffer; Internal Control DNA; Positive Control DNA; PCR Grade Water.

### Sensitivity

It is possible to detect the target meat type in a complex environment (e.g. with other meat types) down to a threshold level of 0.5 % when used in combination with ExtractNow™ Meat ID kit.

### Required Consumables & Lab Devices

Ethanol > 96 % abs., water, microcentrifuge, heat block, pipettes and filter tips.

### Storage and Shelf Life

The unopened components can be stored at room temperature until the expiry date indicated on the label. Store the Proteinase K at +2 to +8 °C.



### Recommended Use

For research use only! Not for use in diagnostic procedures.

### Time to Result

Approx. 90 minutes.

### Cyclers

Any qPCR cycler with FAM™ and HEX™ filters and compatible with high profile tubes.

### Storage

The unopened components can be stored at +2 to +8 until the expiry date indicated on the label. After rehydration, store at ≤ 18 °C.

## Ordering Information

### ExtractNow™ Meat ID

Cat. No. 608-1010 10 extractions

Cat. No. 608-1050 50 extractions

### Meat ID™ Halal

Cat. No. 370-1025 25 reactions

Cat. No. 370-1100 100 reactions

## How to order

Tel.: +49-30-2000437-0

E-mail: [order@minerva-biolabs.com](mailto:order@minerva-biolabs.com)

Internet: [www.minerva-biolabs.com](http://www.minerva-biolabs.com)



### Disclaimer:

FAM and HEX are trademarks of Applied Biosystems Corporation or its subsidiaries in the U.S. and certain other countries. TaqMan is a registered trademark of Roche Molecular Systems, Inc.. ExtractNow and Meat ID are trademarks of Minerva Biolabs GmbH.

MBI\_FL39.03EN

© 2020 Minerva Biolabs GmbH  
Member of the Dilarus Group