

## | How to Load Samples



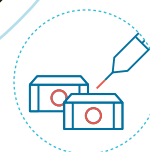
Contains DNA extraction kit and ready-to-use lyophilized PCR assay for convenient test.



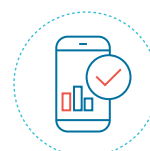
Whole testing can be finished in 40 minutes for meats and 50 minutes for processed foods.



Simple protocol for minimized user handling – Just add DNA template and run the test.



Two kit options are available depending on the method of DNA extraction.



Ideal for on-site detection using UF-300 and UF-340 based mobile lab system

# smartchek HALAL Food Testing Kit

Precise and Highly Sensitive  
Porcine Detection in 50 minutes

### DO YOU RECOGNIZE WHAT YOU COMSUME?

The dietary laws prohibit Jews and Muslims from consuming pork but when pork ingredients are included in food products deliberately or accidentally, consumers cannot recognize its existence due to lack of proper tools for the detection.

Genesystem has developed fast and easy-to-use porcine detection system which enables food producers and merchants to perform HALAL testing by themselves without sending the samples to third party labs for analysis and get assured with the ingredients they consume through 40-50 minutes taking qPCR based HALAL testing process.

### IDEAL FOR INTERNAL QUALITY CONTROL AND ASSURANCE

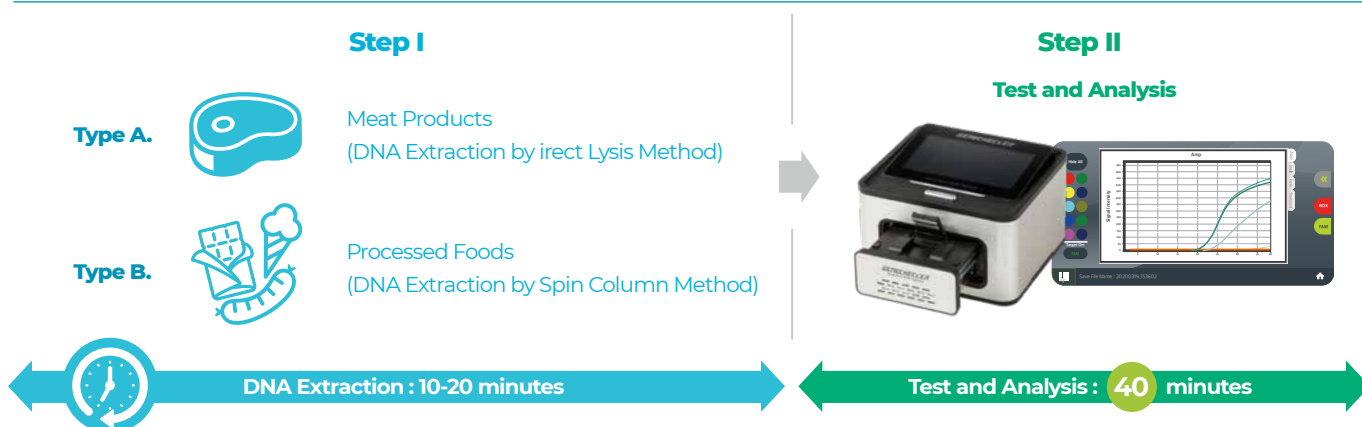
For the food producers and merchants, it should be difficult to have internal laboratory to perform DNA testing to detect porcine ingredients as a part of quality control and assurance protocol because the detection system itself is very costly and the testing can be performed only by skilled manpower who should have biological background. The porcine detection system offered by Genesystem is ideal for the HALAL food producers and merchants who are not equipped with internal laboratory for DNA testing because the system is affordable, compact and easy-to-use.

## HOW IT WORKS?

**smartchek** HALAL Food Testing Kit is optimized for use with **genechecker** UF-300 and UF-340 Real-time PCR systems of Genesystem in order to ensure fast result of analysis. The kit is supplied in two different formats depending on the method of extraction.

The kit containing direct lysis buffer is ideal for test of meat products as enough quantity of pure DNA can be extracted using this method. The kit containing extraction columns with buffers can be used for the processed foods as this kit can extract and purify the DNA from food samples. The extracted DNA from the two different kits is put into the lyophilized reagent then the mixture is loaded in Rapi:chip™ for running PCR test. The whole test including extraction step takes 40-50 minutes depending on the method of extraction.

## STANDARD WORKFLOW



## ANALYTICAL SENSITIVITY (LIMIT OF DETECTION)

No.	Concentration	Hit Rate
1	1000 pg/μL	100% (10/10)
2	100 pg/μL	100% (10/10)
3	10 pg/μL	100% (10/10)
4	1pg/μL	100% (10/10)
5	0.1pg/μL	20% (2/10)

## ANALYTICAL SPECIFICITY RESULT

No.	Target	Concentration	Hit Rate
1	Cow (Bovine)	1ng/μL	0% (0/3)
2	Chicken (Gallus gallus)	1ng/μL	0% (0/3)
3	Horse (Equine)	1ng/μL	0% (0/3)
4	Sheep (Ovis aries)	1ng/μL	0% (0/3)
5	Goat (Capra aegagrus hircus)	1ng/μL	0% (0/3)
6	Deer (Cervidae)	1ng/μL	0% (0/3)
7	Kangaroo (Macropus)	1ng/μL	0% (0/3)
8	Rabbit (Leporidae)	1ng/μL	0% (0/3)
9	Cat (Felis catus)	1ng/μL	0% (0/3)
10	Dog (Canis lupus)	1ng/μL	0% (0/3)
11	Duck (Platyrhynchos)	1ng/μL	0% (0/3)
12	Turkey (Meleagris genus)	1ng/μL	0% (0/3)
13	Ostrich (Struthio camelus)	1ng/μL	0% (0/3)
14	Goose (Anser anser)	1ng/μL	0% (0/3)
15	Pheasant (Phasianus colchicus)	1ng/μL	0% (0/3)
16	Quail (Coturnix coturnix)	1ng/μL	0% (0/3)

## ORDERING INFORMATION

Catalog No.	Product	Pack Size
9799150500	<b>smartchek</b> HALAL Food Testing Kit (Direct Lysis Method)	48 tests
9799150600	<b>smartchek</b> HALAL Food Testing Kit (Spin Column Method)	48 tests

Genesystem Co., Ltd.