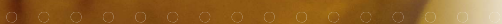


IK

MOLECULAR DETECTION

ICGENE System



Enbiotech's products are kits and instruments based on molecular biology for the research in plant pathology, veterinary and food safety fields.

The diagnostic kits contain all the components necessary for the execution of the test. They are ready-to-use and designed to simplify and drastically speed up the steps required to perform analyses.

Legionella pneumophila Kit

Specific kit for the rapid detection of *Legionella pneumophila* from water samples.

Legionella pneumophila kit is designed for rapid nucleic acid extraction and amplification of LAMP technology. All steps are performed by using ICGENE MINI instrument (Enbiotech Cat N° TR-BI1-2001). Kit has been tested for detection of *Legionella pneumophila*.

Kit Reagents and Components (ready to use)

Extraction Buffer	yellow cap bottles containing extraction buffer
Primer Mix	Freeze-dried primers specific for <i>L.pneumophila</i>
LAMP Mix	green cap tube containing a mix including enzyme
Mineral Oil	blue cap tube containing mineral oil
Positive Control	red cap tube freeze-dried plasmid DNA ready-to-use for LAMP reaction
Negative Control	white cap tube extraction buffer
Sterile Water	clear cap tube sterile water

Legionella pneumophila Badge
contractless badge for identification of the kit containing information relating to the lot number, expiration date and provides the parameters associated with the kit

Kit Features

- All ready-to-use reagents included
- Rapid DNA extraction in 15 minutes at room temperature
- Positive and negative controls included
- Reduction of cross-contaminations
- Portable, user-friendly system suitable for applications directly in the field
- Lyophilized formulation of the reagents, suitable for deliveries at room temperature
- Reagents storage at + 4°C

Analytical Procedure

ICGENE Mini performs 3 steps:

1. Nucleic Acid Extraction
2. Gene Amplification
3. Detection and interpretation of results

After DNA extraction (in a few minutes), samples can be processed by LAMP amplification. For each sample, primer mix tubes are used dispensing the recommended aliquots of the extracted DNA, LAMP mix, and mineral oil, as specified in the kit manual.

By placing the kit badge near to the ICGENE MINI device, the system recognizes the kit through radio-frequency identification (RFID) technology and performs the analyses specially designed for *Legionella pneumophila* detection.

Results Interpretation

ICGENE MINI system performs automatic interpretation of the results. Data are displayed on an Android tablet connected to ICGENE MINI, through which it is possible to control the analytical steps and manage the results. A sigmoid curve indicates a positive sample, whereas a straight line indicates a negative sample for *Legionella pneumophila*. On the left of the tablet screen, a "+" symbol appears next to the sample's name in case it is positive. The analysis results are synchronized with the ICGENE portal server where they can be browsed using its web app.

Performance Criteria

Stability: the kit is stable at room temperature during transportation. Upon arrival, the kit must be stored at 4°C following the strict storage parameters the kit is stable for 1 year.

Analytical Sensitivity and Specificity: The amplification and detection system provides a detectable result of up to 28 plasmid copies/ul of *Legionella pneumophila*.



TK ICGENE System LAMP detection

Xylella fastidiosa Kit

Specific kit for the rapid detection of *Xylella fastidiosa* from host plants (e.g. *Olea europaea*, *Prunus amygdalus*, *Nerium oleander*) and insect vectors (*Philaenus spumarius*, *Neophilaenus campestris*). *Xylella fastidiosa* kit is designed for rapid nucleic acid extraction and amplification by LAMP technology. All steps are performed by using ICGENE MINI device (Enbiotech Cat. No. TR-BI1-2033). Kit has been tested for detection of *Xylella fastidiosa* subsp. *pauca*, *X. fastidiosa* subsp. *fastidiosa* and *X. fastidiosa* subsp. *multiplex*.

Kit Features

Ready-to-use system for total nucleic acid extraction in only few minutes without sophisticated laboratory equipment Ready-to-use reagents avoid the possibility of environmental contamination or human error.

Speed and easiness of the test (about 45 minutes)

Host plants and insects samples

All reagents are stored at 4°C

Shipping at room temperature

Identidairy Goat Kit

Specific kit for rapid detection of goat DNA (*Capra hircus*) DNA in milk and dairy products, raw and cooked. The kit IdentDairyGoat includes all the reagents needed for the rapid DNA extraction and gene amplification by LAMP technology (loop-mediated isothermal amplification)* using the ICGENE MINI portable system with patented technology** (Cat No TR-BI1-2025).

The kit has been developed for the qualitative (presence/absence) detection of goat DNA.

The kit includes a badge with Radio-frequency identification (RFID) with all kit information including lot number and expiration date. The badge allows to carry out the DNA extraction, amplification and automatic interpretation of the results for the specific detection of goat DNA.

Automatic interpretation of the results in real-time using an android tablet. Sigmoid curves indicate positive results (+), straight lines indicate negative results (o) for *C. hircus*.

Identimeat Pork Kit

Specific kit for rapid detection of *Sus scrofa domesticus* (domestic pig) DNA from food matrices. IdentiMeatPork kit includes a rapid nucleic acid extraction and amplification by LAMP technology using the ICGENE MINI device (Enbiotech Cat. No. TR-BI1-2019). The kit has been tested for detection of pork DNA

Kit Features

Ready-to-use system for total nucleic acid extraction in only few minutes without sophisticated laboratory equipment Ready-to-use components reduce the risks related to environmental contamination or human error.

Speed and easiness of the test (about 60 minutes)

Useful for testing food matrices

Possibility of performing genetic tests directly in the field

All reagents are stable at room temperature for the shipment/transport, however they should be stored at 4°C

Kit Features

All ready-to-use reagents included

Rapid DNA extraction in 15 minutes at room temperature

Positive and negative controls included

Reduction of cross-contaminations

Portable, user-friendly system suitable for applications directly in the field

Lyophilized formulation of the reagents, suitable for deliveries at room temperature

Reagents storage at + 4°C



Water

Description	n° Determinations	Cat N°
Salmonella spp.	40	TR-BI1-2000
Legionella pneumophila	40	TR-BI1-2001
Pseudomonas aeruginosa	40	TR-BI1-2002
Clostridium perfringens ⁱ	40	TR-BI1-2003
Campylobacter spp. ⁱ	40	TR-BI1-2004
Vibrio cholerae ⁱ	40	TR-BI1-2005
Vibrio parahaemolyticus ⁱ	40	TR-BI1-2006
Vibrio vulnificus ⁱ	40	TR-BI1-2007
Legionella spp.	40	TR-BI1-2008

Food

Description	n° Determinations	Cat N°
Listeria monocytogenes	40	TR-BI1-2009
Salmonella spp.	40	TR-BI1-2010
Anisakis	40	TR-BI1-2011
Campylobacter spp. ⁱ	40	TR-BI1-2012
STEC ⁱ	40	TR-BI1-2013
Clostridium perfringens	40	TR-BI1-2014

Veterinary

Description	n° Determinations	Cat N°
Leishmania spp.	40	TR-BI1-2015
Parvovirus spp.	40	TR-BI1-2016
Babesia spp.	40	TR-BI1-2017
Canine distemper Virus ⁱ	40	TR-BI1-2018
Mycoplasma agalactiae	40	TR-BI1-2019

ID Meat

Description	n° Determinations	Cat N°
IdentiMeat Pork	40	TR-BI1-2020
IdentiMeat Beef	40	TR-BI1-2021
IdentiMeat Goat	40	TR-BI1-2022
IdentiMeat Sheep	40	TR-BI1-2023
IdentiMeat Deer	40	TR-BI1-2024

TK ICGENE mini LAMP Detection Kits

ID Dairy

Description	n° Determinations	Cat N°
IdentiDairy Cow	40	TR-BI1-2025
IdentiDairy Goat	40	TR-BI1-2026
IdentiDairy Sheep	40	TR-BI1-2027
IdentiDairy Donkey ⁱ	40	TR-BI1-2028
IdentiDairy Bufal ⁱ	40	TR-BI1-2029

ID Fish

Description	n° Determinations	Cat N°
IdentiFish Tuna	40	TR-BI1-2030
IdentiFish Salmon	40	TR-BI1-2031
IdentiFish Sardinella	40	TR-BI1-2032
IdentiFish Sardina	40	TR-BI1-2033

Phytopathology

Description	n° Determinations	Cat N°
Xylella fastidiosa plant	40	TR-BI1-2034
Xylella fastidiosa vector	40	TR-BI1-2035
Xylella fastidiosa Plate Biorad	96	TR-BI1-2036
Xylella fastidiosa Plate Applied Biosystem	96	TR-BI1-2037
PSA	40	TR-BI1-2038
ToLCNDV	40	TR-BI1-2039
Guignardia citricarpa	40	TR-BI1-2040
PPV	40	TR-BI1-2041
Botrytis cinerea	40	TR-BI1-2042
Monilia fructigena	40	TR-BI1-2043
Monilia fructicola	40	TR-BI1-2044
CTV	40	TR-BI1-2045
Candidatus liberibacter asiaticus ⁱ	40	TR-BI1-2046
Erwinia amylovora ⁱ	40	TR-BI1-2047
Clavibacter michiganensis subsp. sepedonicus ⁱ	40	TR-BI1-2048
Xanthomonas campestris pv. campestris ⁱ	40	TR-BI1-2049
Verticillium dahliae ⁱ	40	TR-BI1-2050

Equipment

Description	Cat N°
ICGENE mini	TR-BI1-2051
ICGENE Plus ⁱ	TR-BI1-2052
Complete case of ICGENE and centrifuge	TR-BI1-2053
Complete ICGENE case and filtration ramp	TR-BI1-2054

ⁱ Available at 2020