LoopDeetect food safety range

Salmonella spp

Listeria spp

Listeria monocytogenes

Escherichia coli

Enterococcus faecalis

Gene amplification detection device

User manual

Version 7.0 – November 2025

For exclusive use with the LoopiX® device

RUO (Research Use Only) device

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RUO

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Definitions

DNA (Deoxyribonucleic acid) : A long molecule made up of a succession of nucleotides which contains the genetic heritage of an individual, a bacterial species, etc.

Primers: Short DNA or RNA sequences used in gene amplification analysis to define the areas of genetic material to be duplicated.

RNA (RiboNucleic Acid) : Molecule with an architecture very similar to DNA. RNA is synthesised by a living organism on the basis of DNA. The detection of RNA makes it possible to identify a living organism.

Control interface: LoopiX Cloud software or LoopiX App, a computer or smartphone solution for controlling the LoopiX® device.

LAMP (*Loop-mediated isothermal amplification*): A molecular biology analytical technique for *in-vitro* gene amplification, similar to PCR, the aim of which is to amplify a genetic sequence at a constant temperature.

Master Mix: Ready-to-use solution containing the various reagents in the optimum concentration for performing a LAMP analysis.

PCR (*Polymerase Chain Reaction*): Molecular biology analytical technique for *in-vitro* gene amplification, the aim of which is to duplicate a large number of the genetic sequence of the target sought.

Information

This notice is the property of Loop Dee Science World Wide. It may not be copied or reproduced without the prior permission of Loop Dee Science World Wide. All users must read these instructions carefully before use in order to be aware of all the information supplied with the kits.

The kits offered by Loop Dee Science World Wide are Molecular Biology kits based on isothermal amplification technology - an innovative DNA and RNA multiplication technology enabling amplification and detection of the target genetic material in a short analysis time.

No claim or representation is intended to provide information for the diagnosis, prevention or treatment of any disease.

In order to obtain optimal results, it is necessary to scrupulously follow the operating instructions and recommendations for use.

The kits in the LoopDeetect range can only be used in conjunction with the LoopiX® device.

Description of symbols

Symbol	Description
	Consulting the instructions for use
	Manufacturer's name and address with or without date of manufacture
	Date of manufacture
	Product batch number
	Use by date
	Sufficient content for ***n*** trials
	Storage temperature limit
	Product reference
	Keep Dry
	Store away from light and direct heat.
	Single use
	RUO (Research Use Only) device. Not for diagnostic use
	Sterilised by irradiation
	Sterilised with ethylene oxide
	Toxic, irritant, sensitising, narcotic
	flammable

Description of kits and packaging

These devices are designed for food industry professionals (producers, processors, distributors, restaurateurs), as well as for food analysis laboratories and hygiene specialists.

They are designed for use in self-monitoring systems, in line with current practices in the agri-food sector.

The kits are suitable for a variety of applications:

- Surface swabbing (without enrichment)
- Colony confirmation from Petri dish culture
- Analysis of food or environmental samples in culture media

⚠ Note: For samples requiring chemical extraction, the use of a benchtop centrifuge is recommended but not mandatory.

Before use, it is essential to have consulted and understood:

- LoopiX® operating instructions
- The control interface manual
- These instructions (also available on loopdeescience.com/downloads)

Sampling kits

Package	Package description
Surface sampling kit with S1 collection tube (per 50)	50 swabs 50 sampling tubes **S1**
S1 surface sampling kit without swabs (per 50)	50 sampling tubes **S1**

Purification kits

Package and description	Package details
Purification kit "single-dose" (per 50) This package is used to extract and purify genetic material from 'clean' surface swabs / 'simple' food or environmental matrices.	50 tubes of Lysis buffer **PFS L1** 50 tubes of Binding tubes **PFS B2** 50 tubes of Wash buffer **PFS W3** 50 tubes of Elution buffer **PFS E4** Transfer pipettes of various volumes
Purification kit Plus "single-dose" (per 50) This package extracts and purifies genetic material from 'soiled' surface swabs / 'complex' food or environmental matrices.	50 tubes of Lysis buffer **PFS+ L1** 50 tubes of Binding tubes **PFS+ B2** 50 tubes of Wash buffer **PFS+ W3** 50 tubes of Wash buffer **PFS+ W4** 50 tubes of Wash buffer **PFS+ W5** 50 tubes of Elution buffer **PFS+ E6** **Two options** are available for **liquid transfers**: **Option 1**: 3 Boxes of P1000 tips **Option 2**: 50 transfer pipettes 3.5mL, 50 transfer pipettes 6 mL, 50 cotton swabs

Purification kits extract bacterial DNA and RNA from samples of food or environmental matrices, for analysis with LoopDeetect detection kits.

They are based on extraction technology using functionalized magnetic beads capable of capturing the genetic material present in the sample. The extraction protocol consists of four steps:

1. **Lysis**: rupture of bacterial walls to release genetic material.
2. **Binding**: capture of DNA/RNA by functionalized beads.
3. **Washing**: removal of impurities.
4. **Elution**: recovery of genetic material.

Separation of beads and reagents is facilitated by a magnetic rack that concentrates the beads against the tube wall.

LoopDeetect detection kits

Kit designation	Kit contents
LoopDeetect *Salmonella spp.* (per 50)	- 50 reaction tubes **R1** (clear tube in white pouch)
LoopDeetect *L.monocytogenes* (per 50)	- 50 reaction tubes **R1** (clear tube in grey pouch)
LoopDeetect *L.spp* (per 50)	- 50 reaction tubes **R1** (clear tube in black pouch)
LoopDeetect *Escherichia coli* (per 50)	- 50 reaction tubes **R1** (clear tube in gold pouch)
LoopDeetect *Enterococcus faecalis* (per 50)	- 50 reaction tubes **R1** (clear tube in grey pouch) - 50 tubes of **D2** dilution buffer

LoopDeetect kits enable the detection of a specific bacterial target in environmental samples (agri-food surfaces) and food samples.

Combined with the LoopiX® device, they amplify by isothermal reaction a specific region of DNA or RNA of the bacterium or bacterial genus of interest.

These kits are intended for qualitative analysis only.

They come as freeze-dried reagent, packaged in a conical tube in a protective atmosphere.

Each tube contains:

- An amplification mastermix
- A set of target-specific primers
- A reaction protection system

LoopDeetect kits work exclusively with the LoopiX® device.

Positive controls

Positive control designation	Kit contents	Associated kit
LoopDeetect *Salmonella spp.* +	- 1 positive control (**yellow tube** in red pouch) - 1 buffer tube **S1**	LoopDeetect *Salmonella spp.*
LoopDeetect *Listeria* +	- 1 positive control (**yellow tube** in red pouch) - 1 buffer tube **S1**	LoopDeetect *L.monocytogenes* LoopDeetect *Listeria spp.*
LoopDeetect *Escherichia coli* +	- 1 positive control (**yellow tube** in red pouch) - 1 buffer tube **S1**	LoopDeetect *Escherichia coli*
LoopDeetect *Enterococcus faecalis* +	- 1 positive control (**yellow tube** in red pouch) - 1 buffer tube **S1**	LoopDeetect *Enterococcus faecalis*

The positive controls supplied by Loop Dee Science are made up of linear or plasmid DNA targeting the same region amplified by the corresponding LoopDeetect kits.

They are intended for external quality control of the entire system (LoopiX® device + LoopDeetect kit).

Please note: Consider the positive control as a purified sample and not as a standard solution.

Instructions for use:

- It is compatible only with the corresponding LoopDeetect detection kit.
- It cannot be used with Loop Dee Science purification kits.
- It is used to validate the entire analytical chain, from the device to the interpretation of results.

We recommend using this control in the following cases:

- Each time a new batch of LoopDeetect kits is received.
- When qualifying a new LoopiX® device
- To qualify a new operator
- As a periodic check, according to the frequency of use defined by the user
- To validate the compatibility of the different matrices with the method (Inhibition control).

General handling precautions

Before handling, please observe the following precautions to ensure reliable sample collection and handling. These precautions are essential to guarantee the quality of the analyses and must be followed at all times.

- Never mix items from different kits.
- Samples may contain potentially infectious biological agents; handle with care.
- Some chemicals in purification kits are hazardous. Material Safety Data Sheets (MSDS) are available on request. Always wear the appropriate personal protective equipment (PPE): gloves, goggles, smock and mask.

Hygiene and safety instructions

- The kits are not suitable for human diagnostic use.
- The products and the LoopiX® device must be used only in accordance with the instructions for use. Loop Dee Science World Wide declines all responsibility in the event of misuse or failure to comply with the manufacturer's instructions.Avant toute utilisation, nettoyez, désinfectez et rangez soigneusement les surfaces de travail.
- Follow the laboratory's hygiene rules and apply a forward -flow system to avoid contamination.
- Scrupulously follow the instructions for using the kits: storage conditions, type of sample, order of steps, incubation times, shaking and sampling times.
- Do not use kits that have expired (expiry date shown on the label).

Materials and equipement

Some equipment is essential and can be supplied on request:

Application	Product identification
All applications	LoopiX® device
All applications	25µL fixed pipette or 10-100µL variable pipette 100-1000µL variable pipette
All applications	100µL or 1000µL filter tips
Extraction	Magnetic rack

- Regularly check the integrity and volume accuracy of your pipettes. Replace them in case of damage (shock, drop) or doubt.
- Never perform an analysis with an empty LoopiX® or an empty tube, as this may damage the device.
- Carry out all manipulations at a temperature between +10°C and +25°C.
- Some reagents are single-use and must be disposed of after use (see paragraph " Elimination – Gestion des déchets").

Sampling

- If the surface is wet, there's no need to wet the swab.
- Instead, use a wide swabbing surface, rotating the swab with your fingers and vigorously rubbing the surface to loosen the bacteria.
- After sampling, analyse the samples as quickly as possible; otherwise, transport and store the samples in their original tubes at +1°C to +5°C.

Lysis and purification of the sample

- **L1** lysis buffer contains chaotropic salts, including guanidine hydrochloride (**toxic and irritating**).
- The lysed sample should be analyzed within two hours.
- Homogenize the purified sample by aspiration-retrieval before sampling.
- The **B2** tube must remain open during all handling operations, especially during the drying stage.
- **B2** tubes contain chaotropic salts and ethanol (**toxic and flammable**).
- Wash buffers **W3 (PFS)**, **W3**, **W4** and **W5 (PFS+)** also contain ethanol (**flammable**).
- After extraction, analyse samples quickly. For prolonged storage, recover the eluate and store in a clean 1.5mL tube at -20°C.

Preparing the reactions tube

- Do not open the pouch containing the freeze-dried or dehydrated product until you are ready to use it.
- Check that the freeze-dried tablet is at the bottom of the tube. Tap lightly if necessary.
- Make sure the tube and contents are intact:
    - Do not use if the sachet is damaged (tear, poor seal).
    - Do not use if contents are pinkish or sticky.
- Never store freeze-dried or dehydrated tubes outside their original sachet.

Analysis

- Dispense the 25µL volume directly onto the pellet at the bottom of the tube, without air bubbles. Tap if necessary to remove air bubbles.
- During analysis, never disconnect, open or interrupt the LoopiX® before the end.
- A reaction tube must never be used for a second analysis, otherwise a false positive result may be generated. If necessary, repeat the procedure from the time of sampling.
- After use, never open the reaction tube to avoid contamination of the working environment and the risk of errors in future analyses.

Protocols

Before you start, please read the "General handling precautions" carefully, to ensure optimum sample collection and handling

	Salmonella spp. ***Escherichia coli***	***Listeria spp.*** ***Listeria monocytogenes***	***Enterococcus faecalis***
Clean surface swabbing	Protocol A1 Flow chart A1		Protocol A2 Flow chart A2
Soiled surface swabbing	Protocol B1 Flow chart B1		Protocol B2 Flow chart B2
Enriched food or environmental sample (simple matrices)	Protocol C1 Flow chart C1		Protocol C2 Flow chart C2
Enriched food or environmental sample (Complex matrices)	Protocol D1 Flow chart D1		Protocol D2 Flow chart D2
Colony confirmation on petri dish	Protocol E1	Protocol E2	Protocol E4
Negative control	Protocol F1 Flow chart F1, G1, H1		Protocol F2 Flow chart F2, G2, H2
Positive control	Protocol G1 Flow chart F1, G1, H1		Protocol G2 Flow chart F2, G2, H2
Inhibition control	Protocol H1 Flow chart F1, G1, H1		Protocol H2 Flow chart F2, G2, H2

Protocol A1 – Clean surface swabbing – *Salmonella spp. / Listeria spp. / Listeria monocytogenes / E. coli*

Sampling and lysis

- Wet the swab with buffer **S1**.
- Perform surface sampling using the swab.
- Insert the swab into tube **L1** and release the sample by rotating and moving the swab back and forth for 15 seconds, then press it against the tube wall to extract the liquid.
- Close tube **L1** and place it immediatly in the LoopiX®.
- Using the control interface, run a '**Lysis then Amplification'** analysis without delay. The indicator will flash red during the lysis step.

Extraction and Purification with the Purification kit (PFS)

- After lysis (blue light flashing), transfer the contents of tube **L1** to tube **B2** using a 6mL pipette or a 1000µL filter tip.
- Homogenize for 1 minute and until the solution is homogenous. There should be no more clumps of beads.
- Place tube **B2** on the magnetic rack and wait for the beads to be captured.
- Remove the supernatant with the pipette/filter tip, taking care not to touch the beads.
- Using the same 6 mL pipette/filter tip, add buffer **W3** to tube **B2** and homogenize as before.
- Return tube **B2** to the magnetic rack and wait for all beads to be captured.
- Remove the supernatant with the pipette/filter tip without touching the beads, then discard the 6mL pipette/filter tip.
- Let open **B2** tube to air dry for 2-5 min.
- Using a 3.5mL pipette/new filter tip, transfer all the buffer **E4** to tube **B2** and homogenize for 1 minute.
- Place tube **B2** on the magnetic rack and wait for the beads to be captured.

Analysis

- Using a single-channel or electronic pipette, carefully transfer exactly 25 µL of the purified sample from tube **B2** into reaction tube **R1**, avoiding contact with the beads.
- Close reaction tube **R1** by firmly pressing the cap until a "click" is heard, then insert it into the same LoopiX®.
- Start the analysis by pressing the front panel button or via the control interface.
- At the end of the analysis, read the result directly from the status LED and the control interface:

  Red LED: Positive sample

  Green LED: Negative sample

Protocol A2 – Clean surface swabbing – *E. faecalis*

Sampling and lysis

- Wet the swab with buffer **S1**.
- Perform surface sampling using the swab.
- Insert the swab into tube **L1** and release the sample by rotating and moving the swab back and forth for 15 seconds, then press it against the tube wall to extract the liquid.
- Close tube **L1** and place it immediatly in the LoopiX®.
- Using the control interface, run a '**Lysis then Amplification'** analysis without delay. The indicator will flash red during the lysis step.

Extraction and Purification with the Purification kit (PFS)

- After lysis (blue light flashing), transfer the contents of tube **L1** to tube **B2** using a 6mL pipette or a 1000µL filter tip.
- Homogenize for 1 minute and until the solution is homogenous. There should be no more clumps of beads.
- Place tube **B2** on the magnetic rack and wait for the beads to be captured.
- Remove the supernatant with the pipette/filter tip, taking care not to touch the beads.
- Using the same 6 mL pipette/filter tip, add buffer **W3** to tube **B2** and homogenize as before.
- Return tube **B2** to the magnetic rack and wait for all beads to be captured.
- Remove the supernatant with the pipette/filter tip without touching the beads, then discard the 6mL pipette/filter tip.
- Let open **B2** tube to air dry for 2-5 min.
- Using a 3.5mL pipette/new filter tip, transfer all the buffer **E4** to tube **B2** and homogenize for 1 minute.
- Place tube **B2** on the magnetic rack and wait for the beads to be captured.

Analysis

- Using a single-channel or electronic pipette, carefully transfer exactly 25 µL of the purified sample from tube **B2** into dilution tube **D2**, avoiding contact with the beads.
- Mix thoroughly by pipetting up and down, then transfer 25 µL from tube **D2** into reaction tube **R1**.
- Close reaction tube **R1** by firmly pressing the cap until a "click" is heard, then insert it into the same LoopiX®.
- Start the analysis by pressing the front panel button or via the control interface.
- At the end of the analysis, read the result directly from the status LED and the control interface:

  Red LED: Positive sample

  Green LED: Negative sample

Protocol B1 – Soiled surface swabbing - *Salmonella spp. / Listeria spp. / Listeria monocytogenes / E. coli*

Sampling and lysis

- Wet the swab with buffer **S1**.
- Perform surface sampling using the swab.
- Insert the swab into tube **L1** and release the sample by rotating and moving the swab back and forth for 15 seconds, then press it against the tube wall to extract the liquid.
- Close tube **L1** and place it immediatly in the LoopiX®.
- Using the control interface, run a '**Lysis then Amplification'** analysis without delay. The indicator will flash red during the lysis step.

Extraction and Purification with the Purification kit Plus (PFS+)

- After lysis (blue light flashing), transfer the contents of tube **L1** to tube **B2** using a 6mL pipette or a 1000µL filter tip.
- Homogenize for 1 minute and until the solution is homogenous. There should be no more clumps of beads.
- Place tube **B2** on the magnetic rack to capture the beads.
- Remove the supernatant without touching the beads, **B2** remaining on the rack.
- Add buffer **W3** (**W3**) and homogenize again.
- Place tube **B2** on the magnetic rack to capture the beads.
- Remove the supernatant without touching the beads, **B2** remaining on the rack.
- Add buffer **W4** and repeat homogenization, bead capture and supernatant removal steps.
- Add Buffer **W5** and repeat the same steps of homogenization, bead capture and supernatant removal.
  It is essential to remove all of the W5 buffer from the tube. If necessary, use a new tip or a cotton swab to remove the remaining volume.
- Allow to air dry for 2-5 min (tube **B2** open).
- Using a 3.5mL pipette /new filter tip, add buffer **E6** and homogenize for 1 minute.
- Place tube **B2** on the magnetic rack to capture the beads.

Analysis

- Using a single-channel or electronic pipette, carefully transfer exactly 25 µL of the purified sample from tube **B2** into reaction tube **R1**, avoiding contact with the beads.
- Close reaction tube **R1** by firmly pressing the cap until a "click" is heard, then insert it into the same LoopiX®.
- Start the analysis by pressing the front panel button or via the control interface.
- At the end of the analysis, read the result directly from the status LED and the control interface:
  Red LED: Positive sample
  Green LED: Negative sample

Protocol B2 – Soiled surface swabbing – *E.faecalis*

Sampling and lysis

- Wet the swab with buffer **S1**.
- Perform surface sampling using the swab.
- Insert the swab into tube **L1** and release the sample by rotating and moving the swab back and forth for 15 seconds, then press it against the tube wall to extract the liquid.
- Close tube **L1** and place it immediatly in the LoopiX®.
- Using the control interface, run a '**Lysis then Amplification'** analysis without delay. The indicator will flash red during the lysis step.

Extraction and Purification with the Purification kit Plus (PFS+)

- After lysis (blue light flashing), transfer the contents of tube **L1** to tube **B2** using a 6mL pipette or a 1000µL filter tip.
- Homogenize for 1 minute and until the solution is homogenous. There should be no more clumps of beads.
- Place tube **B2** on the magnetic rack to capture the beads.
- Remove the supernatant without touching the beads, **B2** remaining on the rack.
- Add buffer **W3** (**W3**) and homogenize again.
- Place tube **B2** on the magnetic rack to capture the beads.
- Remove the supernatant without touching the beads, **B2** remaining on the rack.
- Add buffer **W4** and repeat homogenization, bead capture and supernatant removal steps.
- Add Buffer **W5** and repeat the same steps of homogenization, bead capture and supernatant removal.
  It is essential to remove all of the W5 buffer from the tube. If necessary, use a new tip or a cotton swab to remove the remaining volume.
- Allow to air dry for 2-5 min (tube **B2** open).
- Using a 3.5mL pipette /new filter tip, add buffer **E6** and homogenize for 1 minute.
- Place tube **B2** on the magnetic rack to capture the beads.

Analysis

- Using a single-channel or electronic pipette, carefully transfer exactly 25 µL of the purified sample from tube **B2** into dilution tube **D2**, avoiding contact with the beads.
- Mix thoroughly by pipetting up and down, then transfer 25 µL from tube **D2** into reaction tube **R1**.
- Close reaction tube **R1** by firmly pressing the cap until a "click" is heard, then insert it into the same LoopiX®.
- Start the analysis by pressing the front panel button or via the control interface.
- At the end of the analysis, read the result directly from the status LED and the control interface:
  Red LED: Positive sample
  Green LED: Negative sample

Protocol C1 – Enriched food or environmental sample (simple matrices) - *Salmonella spp. / Listeria spp. / Listeria monocytogenes / E. coli*

Sampling and lysis

- Prepare the sample according to applicable standards or the company's internal procedures , preferably using a filter bag to retain solid debris that may be present in the sample.
- Homogenise the sample, take 200µL and transfer the volume to tube **L1**.
- Close tube **L1** and place it immediatly in the LoopiX®.
- Using the control interface, run a '**Lysis then Amplification'** analysis without delay. The indicator will flash red during the lysis step.

Extraction and Purification with the Purification kit (PFS)

- After lysis (blue light flashing), transfer the contents of tube **L1** to tube **B2** using a 6mL pipette or a 1000µL filter tip.
- Homogenize for 1 minute and until the solution is homogenous. There should be no more clumps of beads.
- Place tube **B2** on the magnetic rack and wait for the beads to be captured.
- Remove the supernatant with the pipette/filter tip, taking care not to touch the beads.
- Using the same 6 mL pipette/filter tip, add buffer **W3** to tube **B2** and homogenize as before.
- Return tube **B2** to the magnetic rack and wait for all beads to be captured.
- Remove the supernatant with the pipette/filter tip without touching the beads, then discard the 6mL pipette/filter tip.
- Let open **B2** tube to air dry for 2-5 min.
- Using a 3.5mL pipette/new filter tip, transfer all the buffer **E4** to tube **B2** and homogenize for 1 minute.
- Place tube **B2** on the magnetic rack and wait for the beads to be captured.

Analysis

- Using a single-channel or electronic pipette, carefully transfer exactly 25 µL of the purified sample from tube **B2** into reaction tube **R1**, avoiding contact with the beads.
- Close reaction tube **R1** by firmly pressing the cap until a "click" is heard, then insert it into the same LoopiX®.
- Start the analysis by pressing the front panel button or via the control interface.
- At the end of the analysis, read the result directly from the status LED and the control interface:
  Red LED: Positive sample
  Green LED: Negative sample

Protocol C2 - Enriched food or environmental sample (simple matrices) - *E. faecalis*

Sampling and lysis

- Prepare the sample according to applicable standards or the company's internal procedures , preferably using a filter bag to retain solid debris that may be present in the sample.
- Homogenise the sample, take 200µL and transfer the volume to tube **L1**.
- Close tube **L1** and place it immediatly in the LoopiX®.
- Using the control interface, run a '**Lysis then Amplification'** analysis without delay. The indicator will flash red during the lysis step.

Extraction and Purification with the Purification kit (PFS)

- After lysis (blue light flashing), transfer the contents of tube **L1** to tube **B2** using a 6mL pipette or a 1000µL filter tip.
- Homogenize for 1 minute and until the solution is homogenous. There should be no more clumps of beads.
- Place tube **B2** on the magnetic rack and wait for the beads to be captured.
- Remove the supernatant with the pipette/filter tip, taking care not to touch the beads.
- Using the same 6 mL pipette/filter tip, add buffer **W3** to tube **B2** and homogenize as before.
- Return tube **B2** to the magnetic rack and wait for all beads to be captured.
- Remove the supernatant with the pipette/filter tip without touching the beads, then discard the 6mL pipette/filter tip.
- Let open **B2** tube to air dry for 2-5 min.
- Using a 3.5mL pipette/new filter tip, transfer all the buffer **E4** to tube **B2** and homogenize for 1 minute.
- Place tube **B2** on the magnetic rack and wait for the beads to be captured.

Analysis

- Using a single-channel or electronic pipette, carefully transfer exactly 25 µL of the purified sample from tube **B2** into dilution tube **D2**, avoiding contact with the beads.
- Mix thoroughly by pipetting up and down, then transfer 25 µL from tube **D2** into reaction tube **R1**.
- Close reaction tube **R1** by firmly pressing the cap until a "click" is heard, then insert it into the same LoopiX®.
- Start the analysis by pressing the front panel button or via the control interface.
- At the end of the analysis, read the result directly from the status LED and the control interface:

  Red LED: Positive sample
  Green LED: Negative sample

Protocol D1 - Enriched food or environmental sample (complex matrices) - *Salmonella spp. / Listeria spp. / Listeria monocytogenes / E. coli*

Sampling and lysis

- Prepare the sample according to applicable standards or the company's internal procedures , preferably using a filter bag to retain solid debris that may be present in the sample.
- Homogenise the sample, take 200µL and transfer the volume to tube **L1**.
- Close tube **L1** and place it immediatly in the LoopiX®.
- Using the control interface, run a '**Lysis then Amplification'** analysis without delay. The indicator will flash red during the lysis step.

Extraction and Purification with the Purification kit Plus (PFS+)

- After lysis (blue light flashing), transfer the contents of tube **L1** to tube **B2** using a 6mL pipette or a 1000µL filter tip.
- Homogenize for 1 minute and until the solution is homogenous. There should be no more clumps of beads.
- Place tube **B2** on the magnetic rack to capture the beads.
- Remove the supernatant without touching the beads, **B2** remaining on the rack.
- Add buffer **W3** (**W3**) and homogenize again.
- Place tube **B2** on the magnetic rack to capture the beads.
- Remove the supernatant without touching the beads, **B2** remaining on the rack.
- Add buffer **W4** and repeat homogenization, bead capture and supernatant removal steps.
- Add Buffer **W5** and repeat the same steps of homogenization, bead capture and supernatant removal.
  It is essential to remove all of the W5 buffer from the tube. If necessary, use a new tip or a cotton swab to remove the remaining volume.
- Allow to air dry for 2-5 min (tube **B2** open).
- Using a 3.5mL pipette /new filter tip, add buffer **E6** and homogenize for 1 minute.
- Place tube **B2** on the magnetic rack to capture the beads.

Analysis

- Using a single-channel or electronic pipette, carefully transfer exactly 25 µL of the purified sample from tube **B2** into reaction tube **R1**, avoiding contact with the beads.
- Close reaction tube **R1** by firmly pressing the cap until a "click" is heard, then insert it into the same LoopiX®.
- Start the analysis by pressing the front panel button or via the control interface.
- At the end of the analysis, read the result directly from the status LED and the control interface:
  Red LED: Positive sample
  Green LED: Negative sample

Protocol D2 - Enriched food or environmental sample (complex matrices) - *E. faecalis*

Sampling and lysis

- Prepare the sample according to applicable standards or the company's internal procedures , preferably using a filter bag to retain solid debris that may be present in the sample.
- Homogenise the sample, take 200µL and transfer the volume to tube **L1**.
- Close tube **L1** and place it immediatly in the LoopiX®.
- Using the control interface, run a '**Lysis then Amplification'** analysis without delay. The indicator will flash red during the lysis step.

Extraction and Purification with the Purification kit Plus (PFS+)

- After lysis (blue light flashing), transfer the contents of tube **L1** to tube **B2** using a 6mL pipette or a 1000µL filter tip.
- Homogenize for 1 minute and until the solution is homogenous. There should be no more clumps of beads.
- Place tube **B2** on the magnetic rack to capture the beads.
- Remove the supernatant without touching the beads, **B2** remaining on the rack.
- Add buffer **W3** (**W3**) and homogenize again.
- Place tube **B2** on the magnetic rack to capture the beads.
- Remove the supernatant without touching the beads, **B2** remaining on the rack.
- Add buffer **W4** and repeat homogenization, bead capture and supernatant removal steps.
- Add Buffer **W5** and repeat the same steps of homogenization, bead capture and supernatant removal.
  It is essential to remove all of the W5 buffer from the tube. If necessary, use a new tip or a cotton swab to remove the remaining volume.
- Allow to air dry for 2-5 min (tube **B2** open).
- Using a 3.5mL pipette /new filter tip, add buffer **E6** and homogenize for 1 minute.
- Place tube **B2** on the magnetic rack to capture the beads.

Analysis

- Using a single-channel or electronic pipette, carefully transfer exactly 25 µL of the purified sample from tube **B2** into dilution tube **D2**, avoiding contact with the beads.
- Mix thoroughly by pipetting up and down, then transfer 25 µL from tube **D2** into reaction tube **R1**.
- Close reaction tube **R1** by firmly pressing the cap until a "click" is heard, then insert it into the same LoopiX®.
- Start the analysis by pressing the front panel button or via the control interface.
- At the end of the analysis, read the result directly from the status LED and the control interface:
  Red LED: Positive sample
  Green LED: Negative sample

Protocol E1 – Colony confirmation on petri dish – *Salmonella spp. / E. coli*

Sampling and lysis

Using an inoculation loop, collect a colony and resuspend it in sampling tube **S1**.

- Close the tube **S1** and place it in the LoopiX®.
- Using the control interface, start a "**Lysis then Amplification**" analysis. The indicator will flash red during the lysis step.

Analysis

- When the lysis step is complete (blue light flashing), remove tube **S1** from LoopiX® and shake it vigorously.
- Using a single-channel or electronic pipette, carefully transfer exactly 25 µL from tube **S1** into reaction tube **R1**.
- Close reaction tube **R1** by firmly pressing the cap until a "click" is heard, then insert it into the same LoopiX®.
- Start the analysis by pressing the front panel button or via the control interface.
- At the end of the analysis, read the result directly from the status LED and the control interface:
  Red LED: Positive sample
  Green LED: Negative sample

Protocol E2 – Colony confirmation on petri dish – *Listeria spp. / Listeria monocytogenes*

Sampling and lysis

- Using an inoculation loop, collect a colony and resuspend it in lysis tube **L1**.
- Close tube **L1** and place it immediately in the LoopiX®.
- Using the control interface, run a "**Lysis then Amplification**" analysis without delay. The indicator flashes red during the lysis step

Extraction and Purification with the Purification kit (PFS)

- After lysis (blue light flashing), transfer the contents of tube **L1** to tube **B2** using a 6mL pipette or a 1000µL filter tip.
- Homogenize for 1 minute and until the solution is homogenous. There should be no more clumps of beads.
- Place tube **B2** on the magnetic rack and wait for the beads to be captured.
- Remove the supernatant with the pipette/filter tip, taking care not to touch the beads.
- Using the same 6 mL pipette/filter tip, add buffer **W3** to tube **B2** and homogenize as before.
- Return tube **B2** to the magnetic rack and wait for all beads to be captured.
- Remove the supernatant with the pipette/filter tip without touching the beads, then discard the 6mL pipette/filter tip.
- Let open **B2** tube to air dry for 2-5 min.
- Using a 3.5mL pipette/new filter tip, transfer all the buffer **E4** to tube **B2** and homogenize for 1 minute.
- Place tube **B2** on the magnetic rack and wait for the beads to be captured.

Analysis

- Using a single-channel or electronic pipette, carefully transfer exactly 25 µL of the purified sample from tube **B2** into reaction tube **R1**, avoiding contact with the beads.
- Close reaction tube **R1** by firmly pressing the cap until a "click" is heard, then insert it into the same LoopiX®.
- Start the analysis by pressing the front panel button or via the control interface.
- At the end of the analysis, read the result directly from the status LED and the control interface:
  Red LED: Positive sample
  Green LED: Negative sample

Protocol E4 – Colony confirmation on petri dish – *E.faecalis*

Sampling and lysis

- Using an inoculation loop, collect a colony and resuspend it in lysis tube **L1**.
- Close tube **L1** and place it immediately in the LoopiX®.
- Using the control interface, run a "**Lysis then Amplification**" analysis without delay. The indicator flashes red during the lysis step

Extraction and Purification with the Purification kit (PFS)

- After lysis (blue light flashing), transfer the contents of tube **L1** to tube **B2** using a 6mL pipette or a 1000µL filter tip.
- Homogenize for 1 minute and until the solution is homogenous. There should be no more clumps of beads.
- Place tube **B2** on the magnetic rack and wait for the beads to be captured.
- Remove the supernatant with the pipette/filter tip, taking care not to touch the beads.
- Using the same 6 mL pipette/filter tip, add buffer **W3** to tube **B2** and homogenize as before.
- Return tube **B2** to the magnetic rack and wait for all beads to be captured.
- Remove the supernatant with the pipette/filter tip without touching the beads, then discard the 6mL pipette/filter tip.
- Let open **B2** tube to air dry for 2-5 min.
- Using a 3.5mL pipette/new filter tip, transfer all the buffer **E4** to tube **B2** and homogenize for 1 minute.
- Place tube **B2** on the magnetic rack and wait for the beads to be captured.

Analysis

- Using a single-channel or electronic pipette, carefully transfer exactly 25 µL of the purified sample from tube **B2** into dilution tube **D2**, avoiding contact with the beads.
- Mix thoroughly by pipetting up and down, then transfer 25 µL from tube **D2** into reaction tube **R1**.
- Close reaction tube **R1** by firmly pressing the cap until a "click" is heard, then insert it into the same LoopiX®.
- Start the analysis by pressing the front panel button or via the control interface.
- At the end of the analysis, read the result directly from the status LED and the control interface:

  Red LED: Positive sample
  Green LED: Negative sample

Protocol F1 – Negative control – *Salmonella spp. / Listeria spp. / Listeria monocytogenes / E. coli*

Analysis

- Open the pouch containing the **R1** reaction tube from the LoopDeetect kit to be tested.
- Transfer a precise volume of 25µl from the **S1** tube to the **R1** reaction tube.
- Close the **R1** reaction tube by pressing firmly with your finger. A 'click' confirms proper closure and place it into the LoopiX®.
- Using the control interface, start a '**Amplification**' analysis.
- At the end of the analysis, the result is read directly using the indicator light and on the control interface. The result should be **negative, green light**.

Protocol F2 – Negative control – *E.faecalis*

Analysis

- Open the pouch containing the **R1** reaction tube from the LoopDeetect kit to be tested.
- Using a single-channel or electronic pipette, carefully transfer exactly 25 µL of sample from tube **S1** into dilution tube **D2**.
- Mix thoroughly by pipetting up and down, then transfer 25 µL from tube **D2** into reaction tube **R1**.
- Close reaction tube **R1** by firmly pressing the cap until a "click" is heard, then insert it into the same LoopiX®.
- Using the control interface, start a '**Amplification**' analysis.
- At the end of the analysis, the result is read directly using the indicator light and on the control interface. The result should be **negative, green light**.

Protocol G1 – Positive control – *Salmonella spp. / Listeria spp. / Listeria monocytogenes / E. coli*

Warning: It's necessary to use the positive control specific to the LoopDeetect kit (same target):

Positive control designation	Kit contents	Associated LoopDeetect kit
LoopDeetect *Salmonella spp.* +	- 1 positive control (**yellow tube** in red pouch) - 1 buffer tube (**S1**)	LoopDeetect *Salmonella spp.*
LoopDeetect *Listeria* +	- 1 positive control (**yellow tube** in red pouch) - 1 buffer tube (**S1**)	LoopDeetect *L.monocytogenes* LoopDeetect *Listeria spp.*
LoopDeetect *Escherichia coli* +	- 1 positive control (**yellow tube** in red pouch) - 1 buffer tube (**S1**)	LoopDeetect *Escherichia coli*
LoopDeetect *Enterococcus faecalis*+	- 1 positive control (**yellow tube** in red pouch) - 1 buffer tube (**S1**)	LoopDeetect *Enterococcus faecalis*

Preparation of the positive control

- Open the pouch containing the **T+** positive control (**yellow tube**). Check for the presence of dehydrated (blue coloration at the bottom of the tube).
- Using a single-channel pipette or electronic pipette, transfer a precise volume of 50µl of buffer **S1** onto the dehydrated **T+** (or 2*25µL if using a fixed volume 25µL single-channel pipette).
- Homogenise by pumping until the dehydrate is fully dissolved and a uniform blue coloration is observed.

Analysis

- Open the pouch containing the **R1** reaction tube from the LoopDeetect kit to be tested.
- Transfer a precise volume of 25µl from the **T+** positive control to the **R1** reaction tube.
- Close the **R1** reaction tube by pressing firmly with your finger. A 'click' confirms proper closure and place it into the LoopiX®.
- Using the control interface, start a '**Amplification**' analysis.

At the end of the analysis, the result is read directly using the indicator light and on the control interface. The result should be **positive**, **red light**.

Protocol G2 – Positive control – *E.faecalis*

Warning: It's necessary to use the positive control specific to the LoopDeetect kit (same target):

Positive control designation	Kit contents	Associated LoopDeetect kit
LoopDeetect *Salmonella spp.* +	- 1 positive control (**yellow tube** in red pouch) - 1 buffer tube (**S1**)	LoopDeetect *Salmonella spp.*
LoopDeetect *Listeria* +	- 1 positive control (**yellow tube** in red pouch) - 1 buffer tube (**S1**)	LoopDeetect *L.monocytogenes*
		LoopDeetect *Listeria spp.*
LoopDeetect *Escherichia coli* +	- 1 positive control (**yellow tube** in red pouch) - 1 buffer tube (**S1**)	LoopDeetect *Escherichia coli*
LoopDeetect *Enterococcus faecalis*+	- 1 positive control (**yellow tube** in red pouch) - 1 buffer tube (**S1**)	LoopDeetect *Enterococcus faecalis*

Preparation of the positive control

- Open the pouch containing the **T+** positive control (**yellow tube**). Check for the presence of dehydrated (blue coloration at the bottom of the tube).
- Using a single-channel pipette or electronic pipette, transfer a precise volume of 50µl of buffer **S1** onto the dehydrated **T+** (or 2*25µL if using a fixed volume 25µL single-channel pipette).
- Homogenise by pumping until the dehydrate is fully dissolved and a uniform blue coloration is observed.

Analysis

- Open the pouch containing the **R1** reaction tube from the LoopDeetect kit to be tested.
- Transfer a precise volume of 25µl from the **T+** positive control to the dilution tube **D2**.
- Mix thoroughly by pipetting up and down, then transfer 25 µL from tube **D2** into reaction tube **R1**.
- Close the **R1** reaction tube by pressing firmly with your finger. A 'click' confirms proper closure and place it into the LoopiX®.
- Using the control interface, start a '**Amplification**' analysis.
- At the end of the analysis, the result is read directly using the indicator light and on the control interface. The result should be **positive**, **red light**.

Protocol H1 – Inhibition control – *Salmonella spp. / Listeria spp. / Listeria monocytogenes*

This protocol is used to check the compatibility of the matrix with the LoopDeetect method. The principle is to add the target to the sample after purification in order to confirm that the amplification is correct and that the sample does not contain any inhibiting substances that have not been eliminated by the purification step.

This protocol can only be carried out using the extraction kit supplied by Loop Dee Science.

Warning: It's necessary to use the positive control specific to the LoopDeetect kit (same target):

Positive control	Associated LoopDeetect kit
LoopDeetect *Salmonella spp.* +	LoopDeetect *Salmonella spp.*
LoopDeetect *Listeria* +	LoopDeetect *L.monocytogenes*
	LoopDeetect *Listeria spp.*
LoopDeetect *Escherichia coli* +	LoopDeetect *Escherichia coli*
LoopDeetect *Enterococcus faecalis* +	LoopDeetect *Enterococcus faecalis*

Sampling / Preparation

- Perform the sampling / preparation of the sample according to the standard protocol.

Extraction /purification

- Perform the sample extraction using the bacteria purification kit provided by Loop Dee Science.

Analysis

- Using a 3.5mL pipette/1000µL filter tip, transfer the entire volume of purified sample from the **B2** tube to the **T+** positive control, without touching the beads.
- Homogenise by pumping until the dehydrate is fully dissolved and a uniform blue coloration is observed.
- Transfer a precise volume of 25µl from the **T+** positive control to the **R1** reaction tube.
- Close the **R1** reaction tube by pressing firmly with your finger. A 'click' confirms proper closure and place it into the LoopiX®.
- On the control interface, select the LoopiX® and press 'Continue analysis' or start an '**Amplification**' analysis.
- At the end of the analysis, the result is read directly using the indicator light and on the control interface. The result should be **positive**, **red light**.

Protocol H2 – Inhibition control – E.faecalis

This protocol is used to check the compatibility of the matrix with the LoopDeetect method. The principle is to add the target to the sample after purification in order to confirm that the amplification is correct and that the sample does not contain any inhibiting substances that have not been eliminated by the purification step.

This protocol can only be carried out using the extraction kit supplied by Loop Dee Science.

Warning: It's necessary to use the positive control specific to the LoopDeetect kit (same target):

Positive control	Associated LoopDeetect kit
LoopDeetect *Salmonella spp.* +	LoopDeetect *Salmonella spp.*
LoopDeetect *Listeria* +	LoopDeetect *L.monocytogenes*
	LoopDeetect *Listeria spp.*
LoopDeetect *Escherichia coli* +	LoopDeetect *Escherichia coli*
LoopDeetect *Enterococcus faecalis* +	LoopDeetect *Enterococcus faecalis*

Sampling / Preparation

- Perform the sampling / preparation of the sample according to the standard protocol.

Extraction /purification

- Perform the sample extraction using the bacteria purification kit provided by Loop Dee Science.

Analysis

- Using a 3.5mL pipette/1000µL piflter tip, transfer the entire volume of purified sample from the **B2** tube to the **T+** positive control, without touching the beads.
- Homogenise by pumping until the dehydrate is fully dissolved and a uniform blue coloration is observed.
- Transfer a precise volume of 25µl from the **T+** positive control to the **D2** dilution tube.
- Mix thoroughly by pipetting up and down, then transfer 25 µL from tube **D2** into reaction tube **R1**.
- Close the **R1** reaction tube by pressing firmly with your finger. A 'click' confirms proper closure and place it into the LoopiX®.
- On the control interface, select the LoopiX® and press 'Continue analysis' or start an '**Amplification**' analysis.
- At the end of the analysis, the result is read directly using the indicator light and on the control interface. The result should be **positive**, **red light**

Quality control

All manufactured products are prepared in accordance with our quality system, from receipt of the raw materials to marketing of the finished product. Each batch undergoes quality control assessments and is only marketed if it complies with the acceptance criteria predefined by Loop Dee Science World Wide.

Storage and stability

- All kits can be used for 12 months from the date of manufacture and can be used until the expiry date shown on each kit.
- Most of the reagents in the kits are single-use.
- For LoopDeetect kits, store all reagents in a cool, dry place at a temperature between 2 and 25°C.
- Keep reagents away from any source of heat (radiator, window exposed to sunlight, etc.).
- If the room temperature cannot be regulated, store in a refrigerator.
- The stability of the reaction tube (R1) outside its pouch is very short. It is therefore advisable to open the pouch just before use.
- For Purification kits, store all reagents in a cool, dry place, at a room temperature of between 15 and 25°C.
- Keep reagents away from any source of heat (radiator, window exposed to sunlight, etc.).

Waste disposal and management

- Laboratory, chemical or biological waste must be handled and disposed of in accordance with local, regional and national regulations.
- Aluminium pouches can be recycled.

Technical support

Loop Dee Science World Wide provides customer support for all technical and service questions & issues related to the LoopDeetect range. For assistance, please contact our support and assistance team:

Address :

Support technique
Loop Dee Science
100 rue Philippe LIVRY-LEVEL

14760 Bretteville-sur-Odon (France)

Phone : +33 231 730 791 (8 :15 à 17 :45 / Paris time)

Mail : support@loopdeescience.com

Website : https://www.loopdeescience.com

Bibliography

- Instructions for use LoopiX®
- Instructions for the control interface

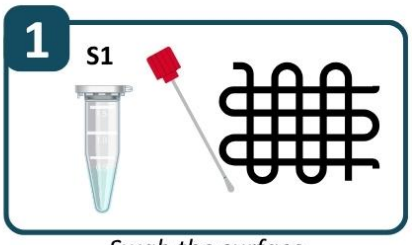
Document history / Version tracking

Review	When	Comments
1.0	Jan-23	Initial public review
2.0	June-23	Modification of protocols; spelling corrections
2.1	Nov-23	Modification of references and packaging - modification of protocols.
2.2	May-24	Modification of links Add LoopiX Cloud
2.3	June-24	Modification of tube nomenclatures : C becomes S Modification of protocols.
3.0	Oct-24	Merger of all instructions for kits in the Food safety range Modification of protocols Modification of tube nomenclatures
4.0	Dec-24	Merger of the Loopdeetect SAL, LMO and LIS kit leaflets following the inclusion of MgSo4 Modification of protocols Modification of tube nomenclatures
5.0	May-25	Integration of ECO and EFA analysis protocols Integration of the PFS+ protocol
6.0	June-25	Complete revision of protocols Complete revision of flow charts Corrections
7.0	Nov-25	Update following the upgrade ok the E. coli LDT kit Update of the handling flowchart following the upgrade of the E. coli LDT kit

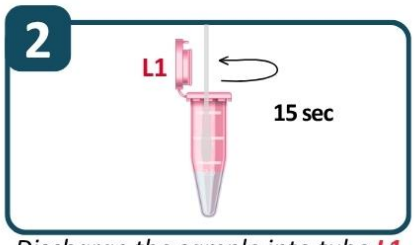
Handling flowcharts

PROTOCOL A1 - STEP BY STEP

Swabbing of clean surface -
Salmonella spp. / Listeria spp. / Listeria monocytogenes / E. coli

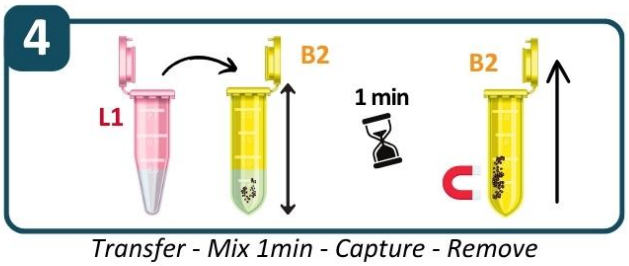


Swab the surface

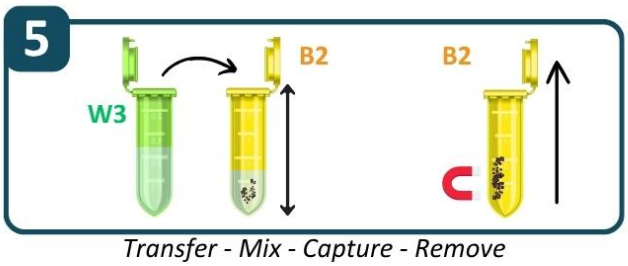


*Discharge the sample into tube **L1***

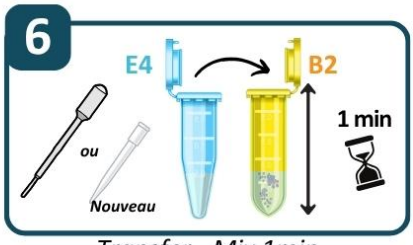
Analysis type : Lysis + Amplification



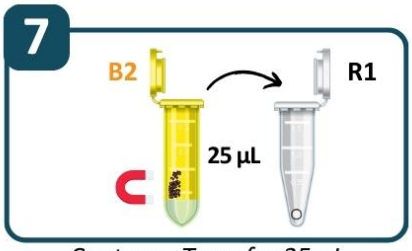
Transfer - Mix 1min - Capture - Remove



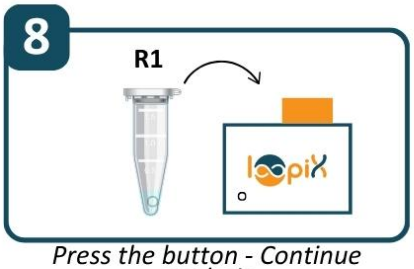
Transfer - Mix - Capture - Remove



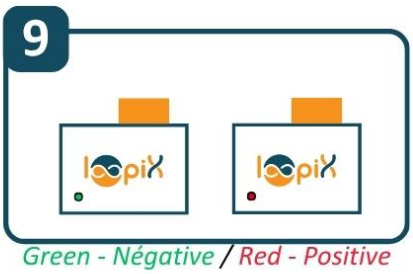
Transfer - Mix 1min



Capture - Transfer 25 µL



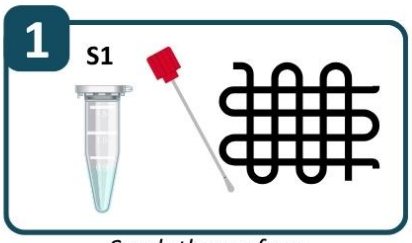
Press the button - Continue analysis



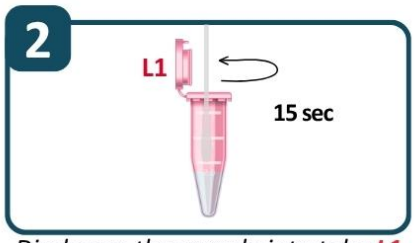
Green - Négative / Red - Positive

PROTOCOL A2 - STEP BY STEP

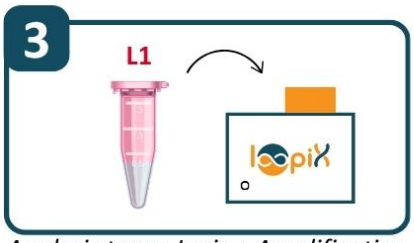
Swabbing of clean surface - *E.faecalis*



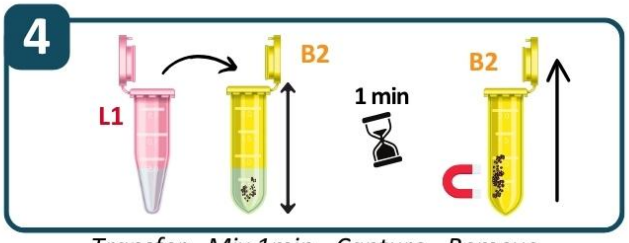
Swab the surface



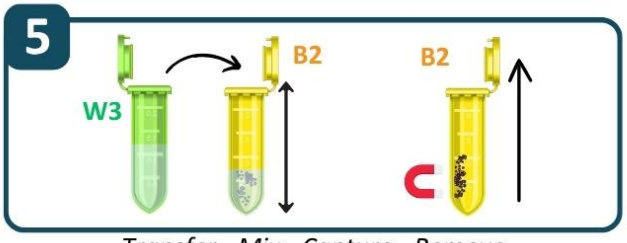
*Discharge the sample into tube **L1***



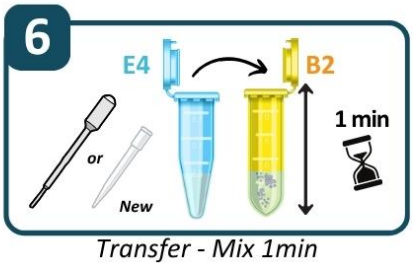
Analysis type : Lysis + Amplification



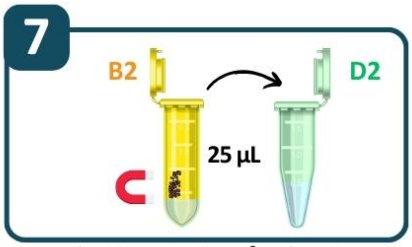
Transfer - Mix 1min - Capture - Remove



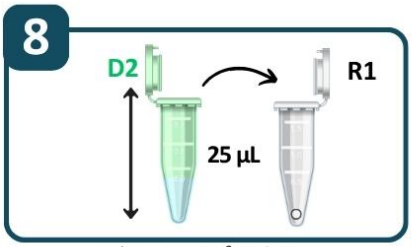
Transfer - Mix - Capture - Remove



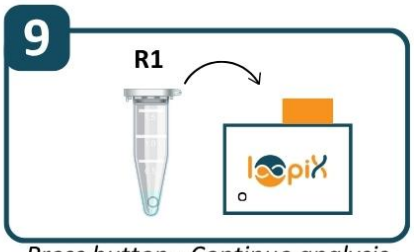
Transfer - Mix 1min



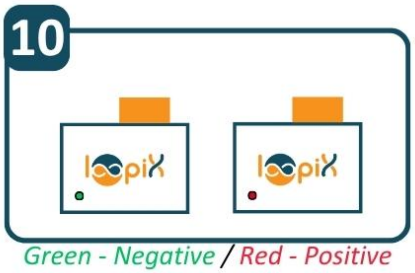
Capture - Transfer 25 µL



Mix - Transfer 25 µL



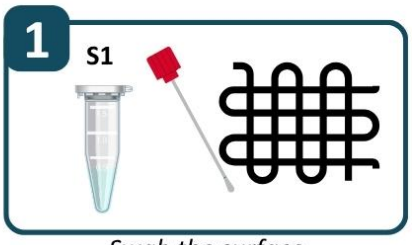
Press button - Continue analysis



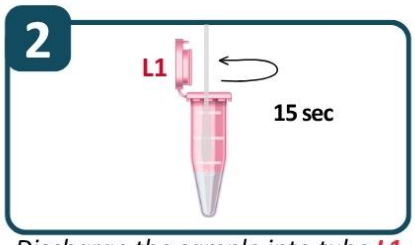
Green - Negative / Red - Positive

PROTOCOL B1 - STEP BY STEP

Swabbing of soiled surface -
Salmonella spp. / Listeria spp. / Listeria monocytogenes / E. coli

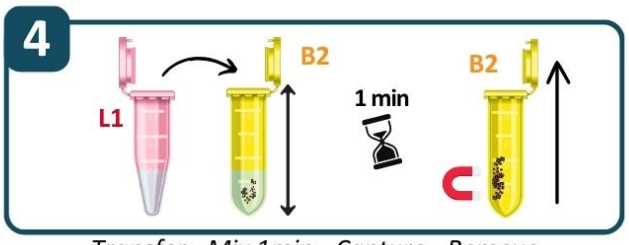


Swab the surface

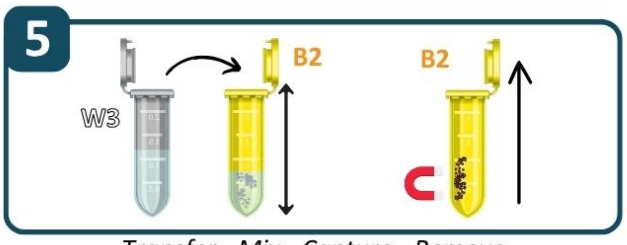


Discharge the sample into tube L1

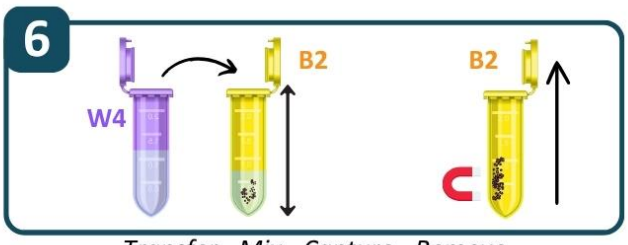
Analysis type : Lysis + Amplification



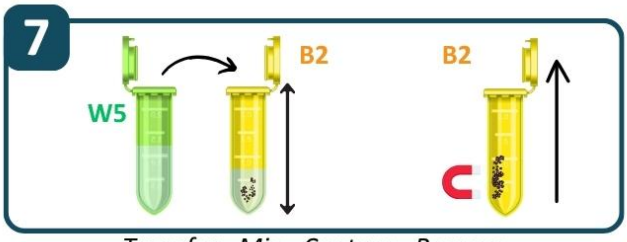
Transfer - Mix 1min - Capture - Remove



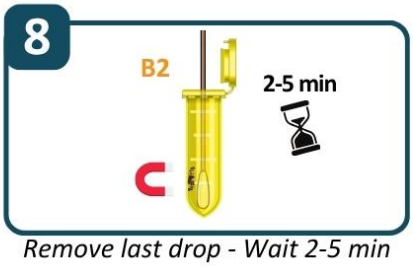
Transfer - Mix - Capture - Remove



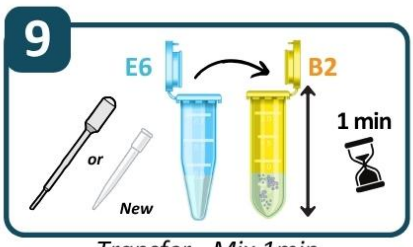
Transfer - Mix - Capture - Remove



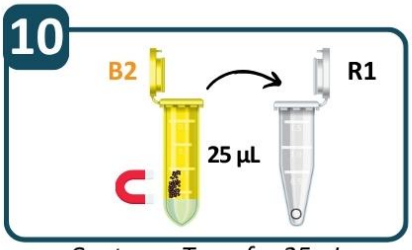
Transfer - Mix - Capture - Remove



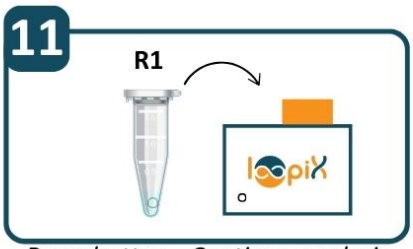
Remove last drop - Wait 2-5 min



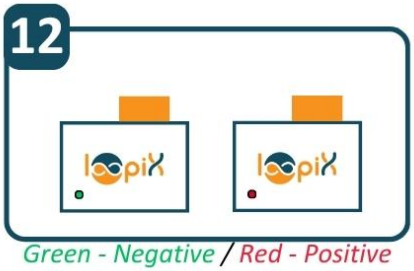
Transfer - Mix 1min



Capture - Transfer 25 µL



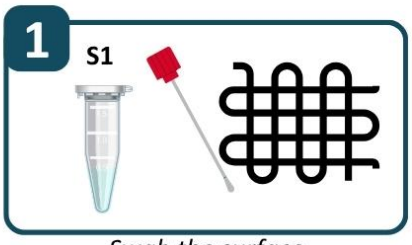
Press button - Continue analysis



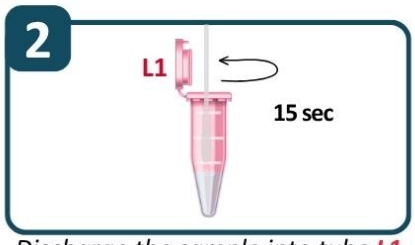
Green - Negative / Red - Positive

PROTOCOL B2 - STEP BY STEP

Swabbing of soiled surface - *E.faecalis*

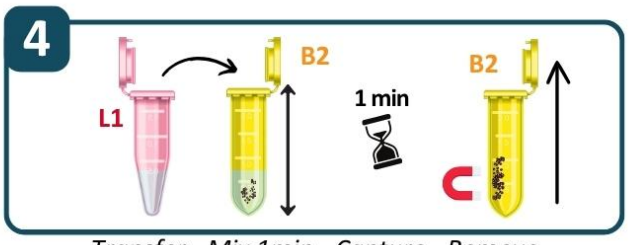


Swab the surface

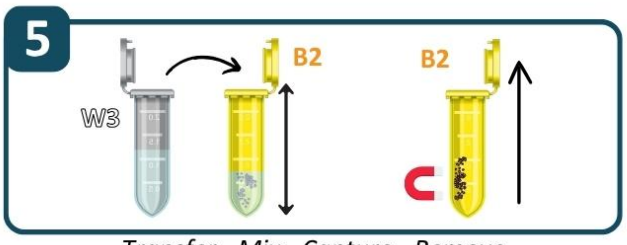


Discharge the sample into tube L1

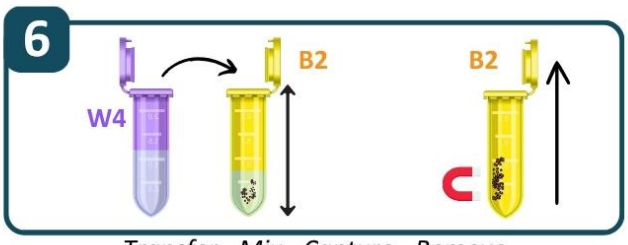
Analysis type : Lysis + Amplification



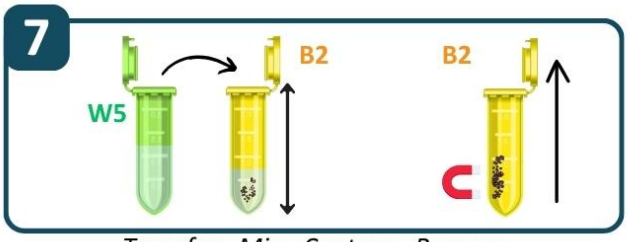
Transfer - Mix 1min - Capture - Remove



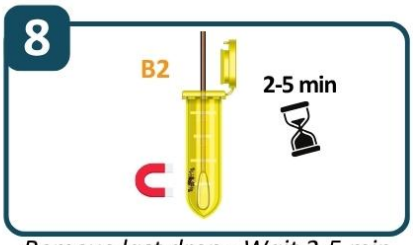
Transfer - Mix - Capture - Remove



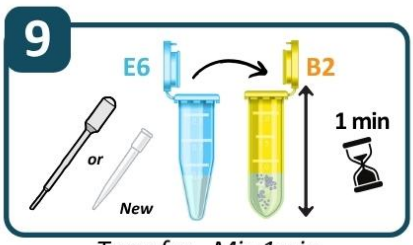
Transfer - Mix - Capture - Remove



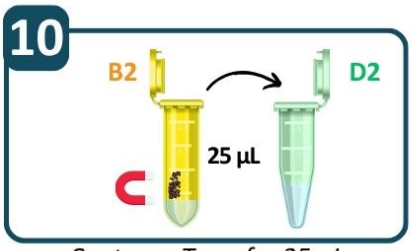
Transfer - Mix - Capture - Remove



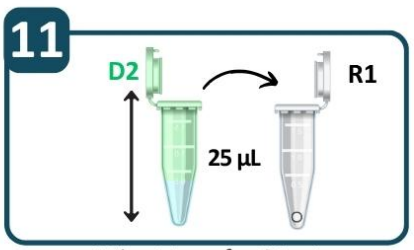
Remove last drop - Wait 2-5 min



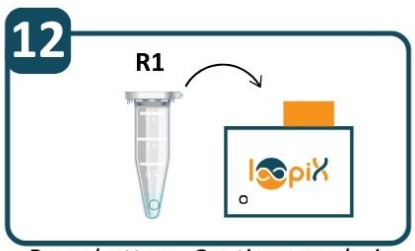
Transfer - Mix 1min



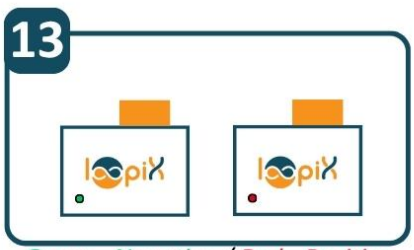
Capture - Transfer 25 µL



Mix - Transfer 25 µL



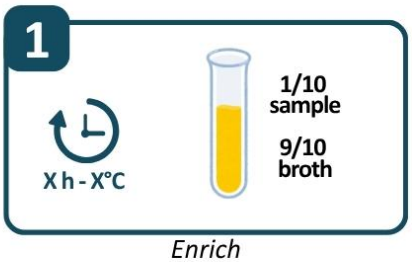
Press button - Continue analysis



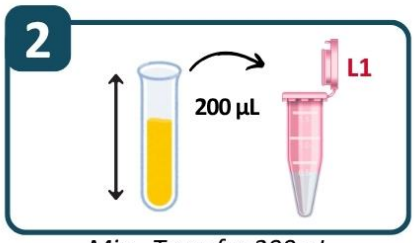
Green - Negative / Red - Positive

PROTOCOL C1 - STEP BY STEP

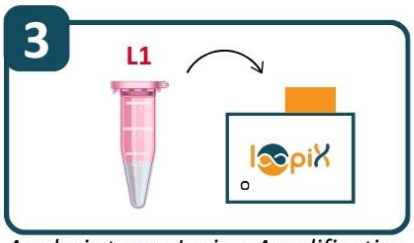
Environmental sample (simple matrice) -
Salmonella spp. / Listeria spp. / Listeria monocytogenes / E. coli



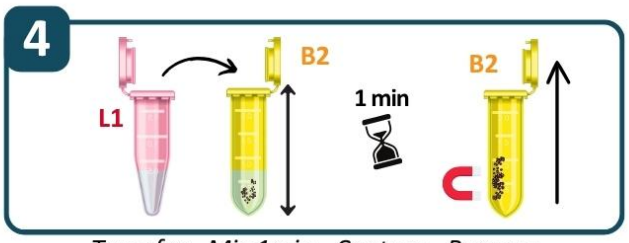
Enrich



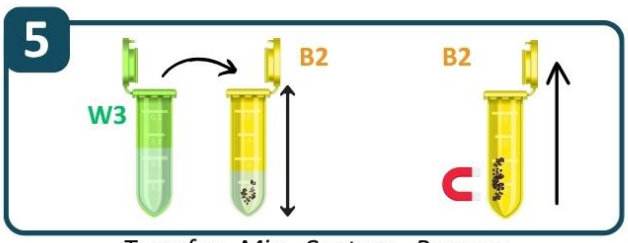
Mix - Transfer 200 µL



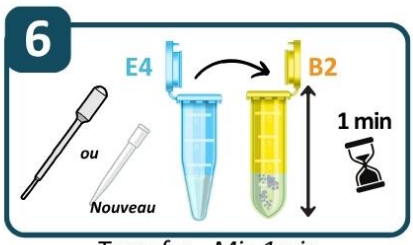
Analysis type : Lysis + Amplification



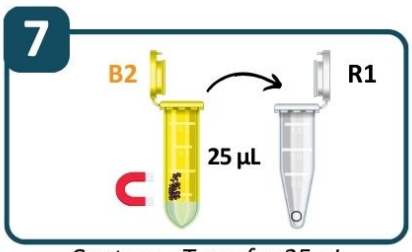
Transfer - Mix 1min - Capture - Remove



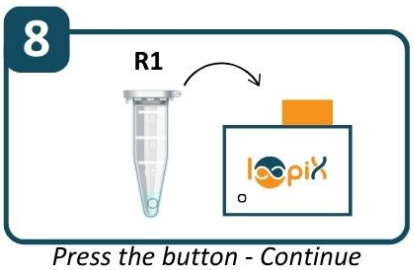
Transfer - Mix - Capture - Remove



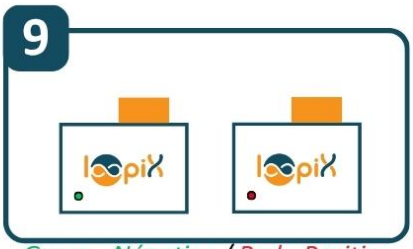
Transfer - Mix 1min



Capture - Transfer 25 µL



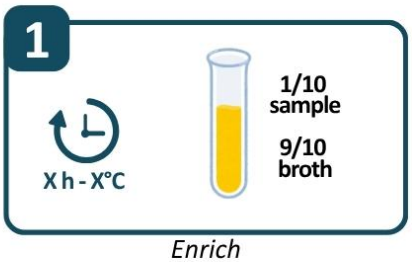
Press the button - Continue analysis



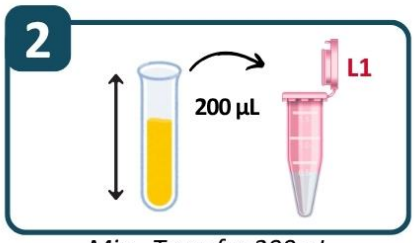
Green - Négative / Red - Positive

PROTOCOL C2 - STEP BY STEP

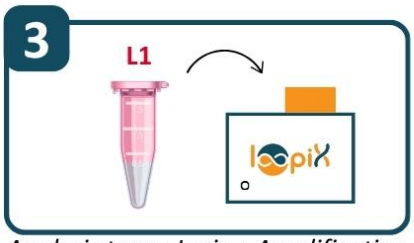
Environmental sample (simple matrice) - *E.faecalis*



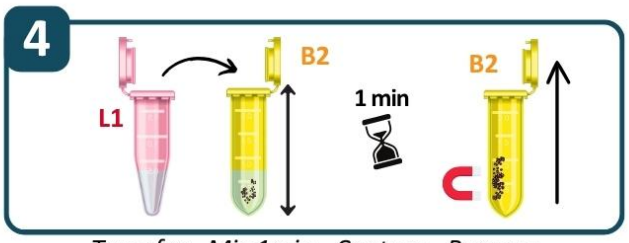
Enrich



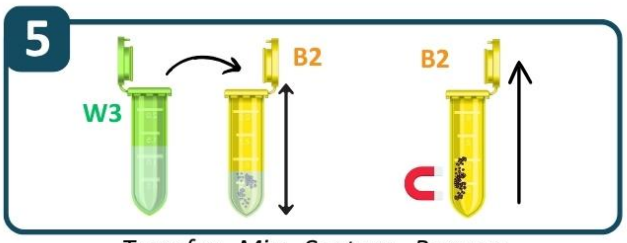
Mix - Transfer 200 µL



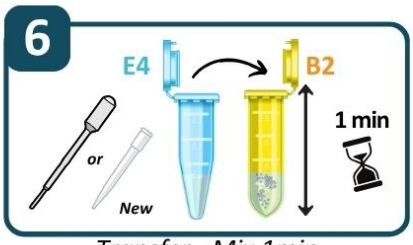
Analysis type : Lysis + Amplification



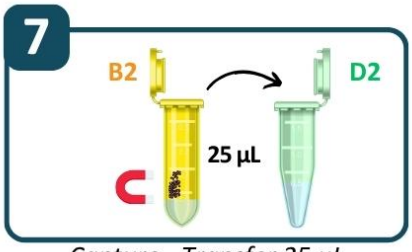
Transfer - Mix 1min - Capture - Remove



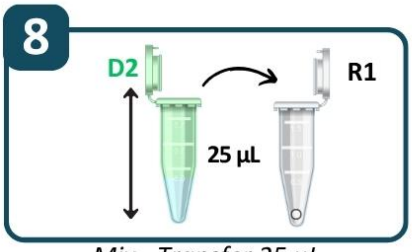
Transfer - Mix - Capture - Remove



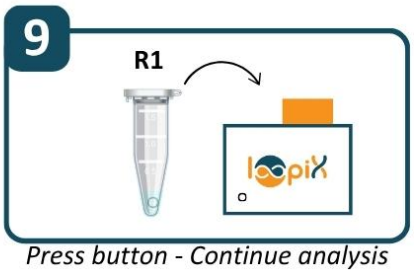
Transfer - Mix 1min



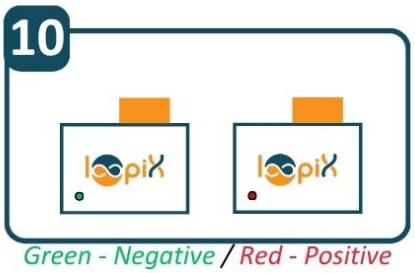
Capture - Transfer 25 µL



Mix - Transfer 25 µL



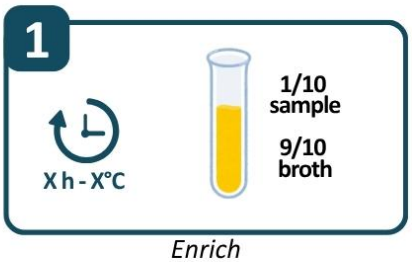
Press button - Continue analysis



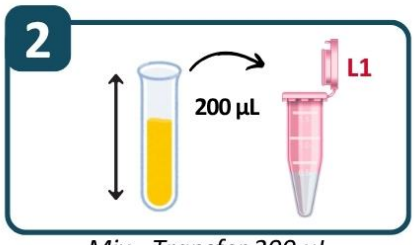
Green - Negative / Red - Positive

PROTOCOL D1 - STEP BY STEP

Environmental sample (complex matrice) -
Salmonella spp. / Listeria spp. / Listeria monocytogenes / E. coli

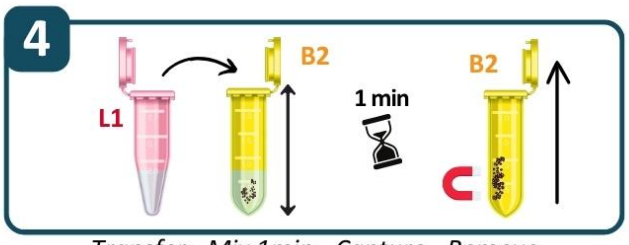


Enrich

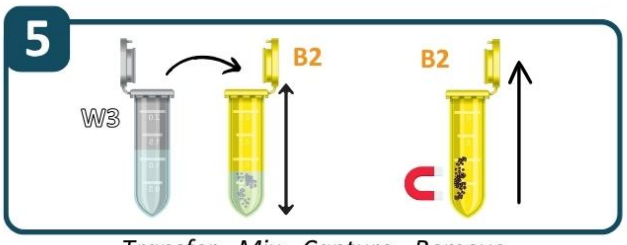


Mix - Transfer 200 µL

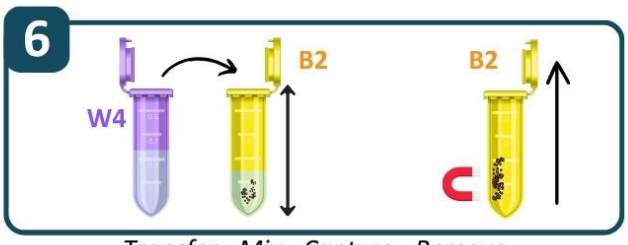
Analysis type : Lysis + Amplification



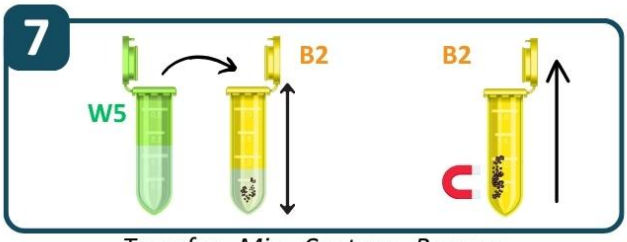
Transfer - Mix 1min - Capture - Remove



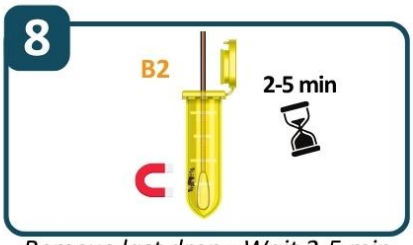
Transfer - Mix - Capture - Remove



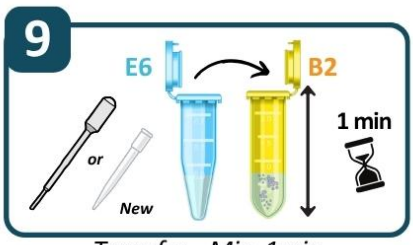
Transfer - Mix - Capture - Remove



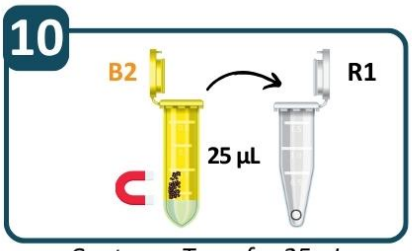
Transfer - Mix - Capture - Remove



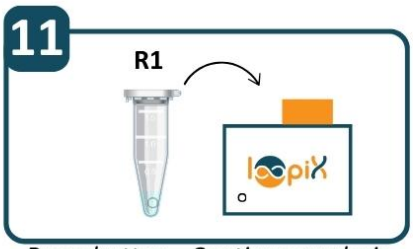
Remove last drop - Wait 2-5 min



Transfer - Mix 1min



Capture - Transfer 25 µL

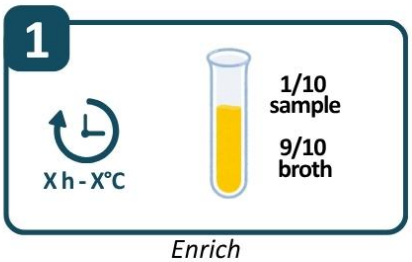


Press button - Continue analysis

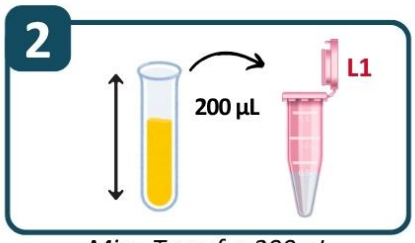
Green - Negative / Red - Positive

PROTOCOL D2 - STEP BY STEP

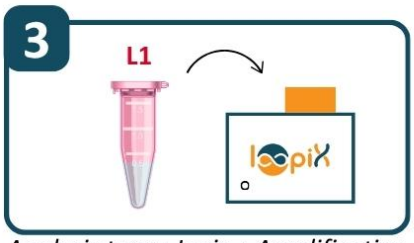
Environmental sample (complex matrice) - *E.faecalis*



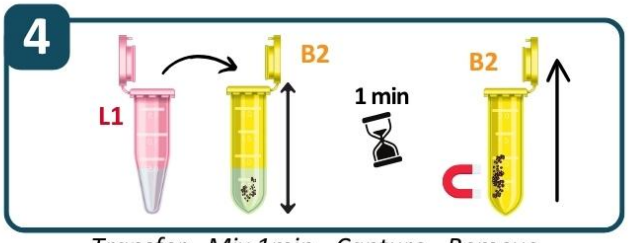
Enrich



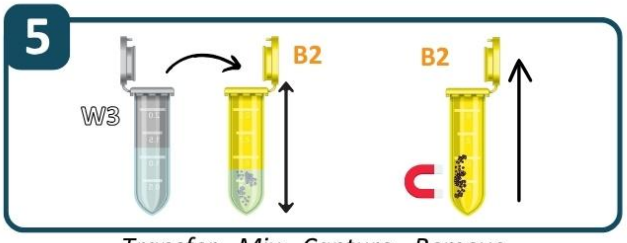
Mix - Transfer 200 µL



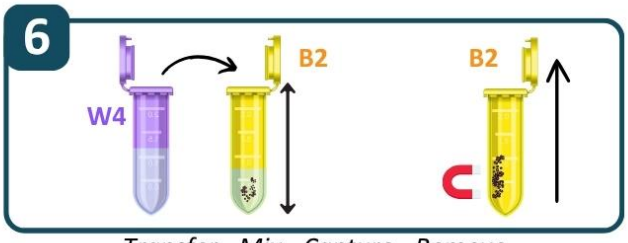
Analysis type : Lysis + Amplification



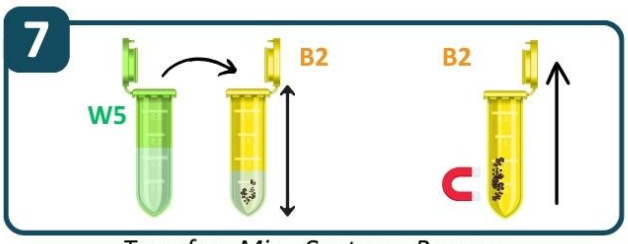
Transfer - Mix 1min - Capture - Remove



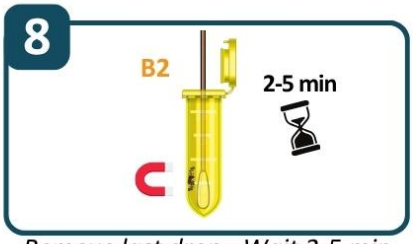
Transfer - Mix - Capture - Remove



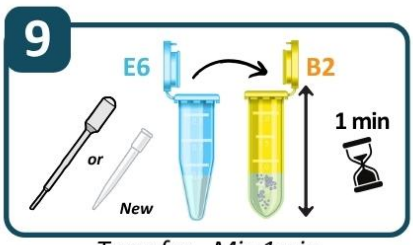
Transfer - Mix - Capture - Remove



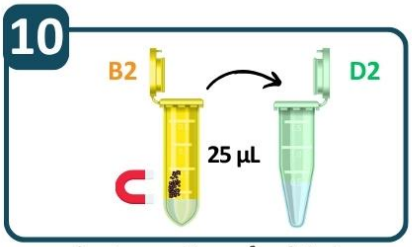
Transfer - Mix - Capture - Remove



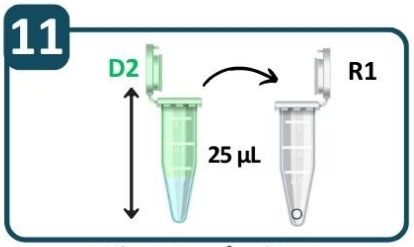
Remove last drop - Wait 2-5 min



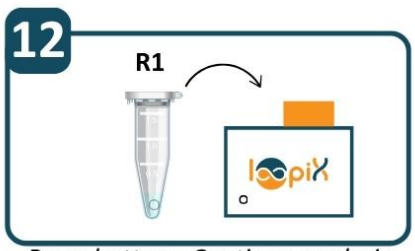
Transfer - Mix 1min



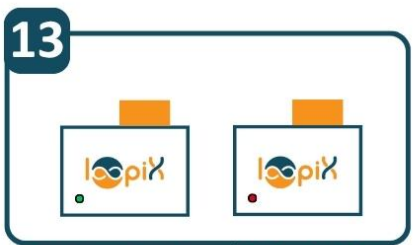
Capture - Transfer 25 µL



Mix - Transfer 25 µL



Press button - Continue analysis

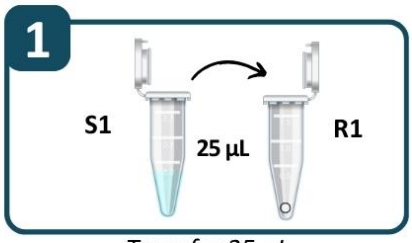


Green - Negative / Red - Positive

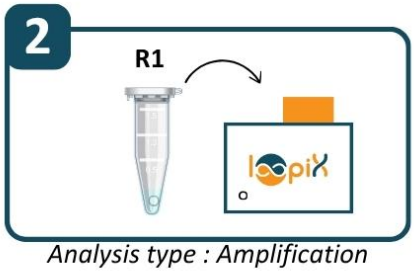
PROTOCOL F1, G1, H1 - STEP BY STEP

Negative, positive, inhibition control -
Salmonella spp. / Listeria spp. / Listeria monocytogenes / E. coli

NEGATIVE CONTROL F1



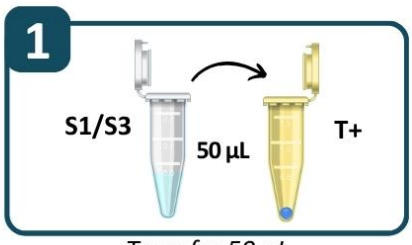
Transfer 25 µL



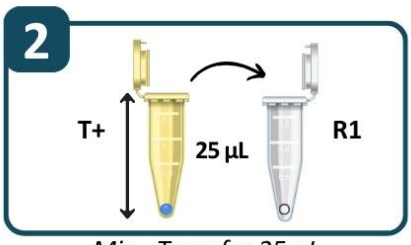
Analysis type : Amplification

RESULT SHOULD BE GREEN - NEGATIVE

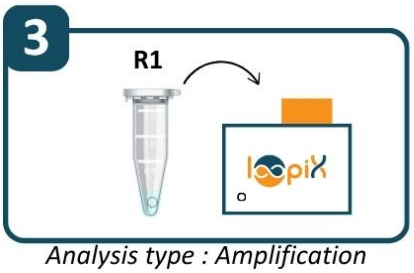
POSITIVE CONTROL G1



Transfer 50 µL



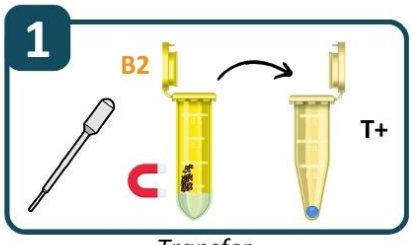
Mix - Transfer 25 µL



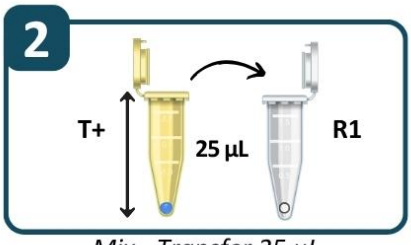
Analysis type : Amplification

RESULT SHOULD BE RED - POSITIVE

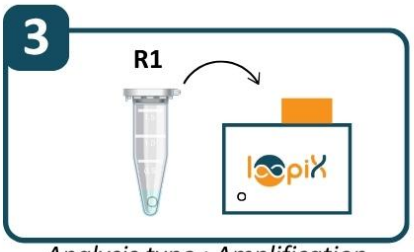
INHIBITION CONTROL H1



Transfer



Mix - Transfer 25 µL



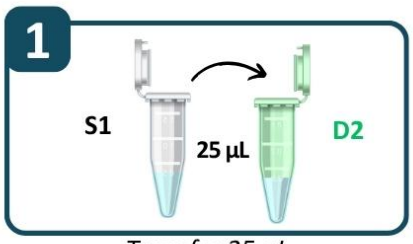
Analysis type : Amplification

RESULT SHOULD BE RED - POSITIVE

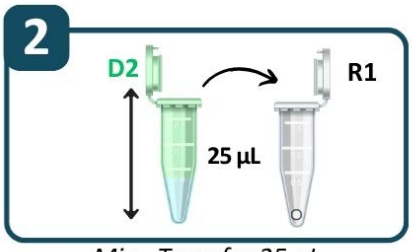
PROTOCOL F2, G2, H2 - STEP BY STEP

Negative, positive, inhibition control - *E.faecalis*

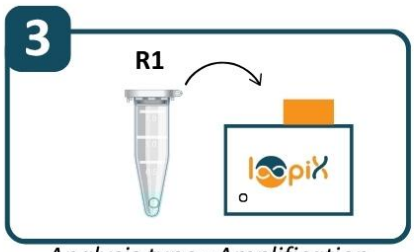
NEGATIVE CONTROL F2



Transfer 25 µL



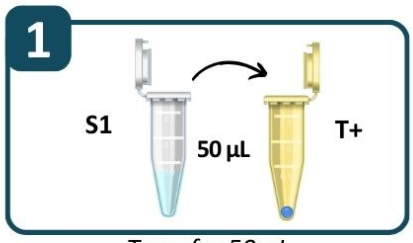
Mix - Transfer 25 µL



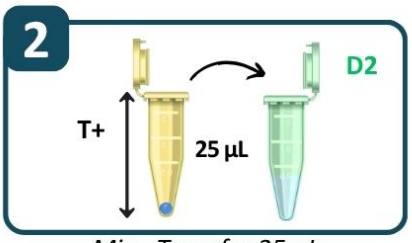
Analysis type : Amplification

RESULT SHOULD BE GREEN - NEGATIVE

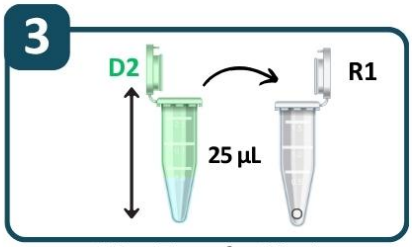
POSITIVE CONTROL G2



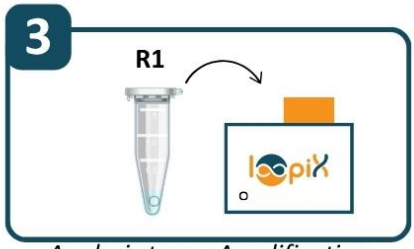
Transfer 50 µL



Mix - Transfer 25 µL



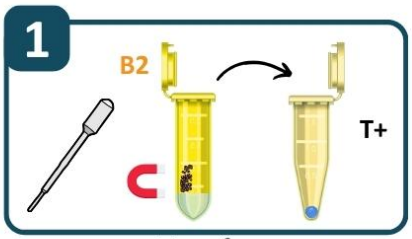
Mix - Transfer 25 µL



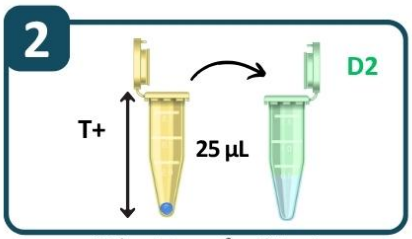
Analysis type : Amplification

RESULT SHOULD BE RED - POSITIVE

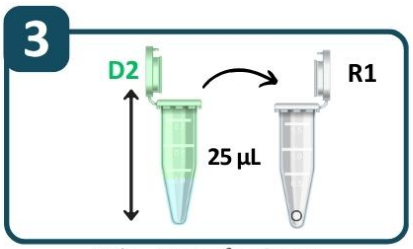
INHIBITION CONTROL H2



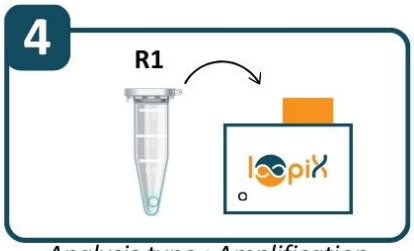
Transfer



Mix - Transfer 25 µL



Mix - Transfer 25 µL



Analysis type : Amplification

RESULT SHOULD BE RED - POSITIVE