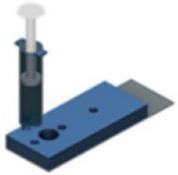
2min with Direct - 1h with commercial protocol

direct analysis

2mL injection

The sample is injected in the cartridge

1mL wash

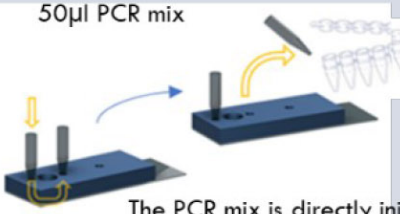


Trapped bacteria are washed with water to remove inhibitors

1min Lysis

The Lysis is mechanical and performed directly in the cartridge by our little instrument during 1min

50µl PCR mix



The PCR mix is directly injected through the cartridge where it recover the target DNA.
Tubes are ready for PCR or LAMP

PCR amplification and Detection

In lab by a qPCR system for large sample batch or on-site for low number of sample

Commercial kit 18 steps simplified here :

15min at 95°C

Cell lysis is performed by heating in a lysis buffer

2mL

200µL

15min at 4°C

15min

Buffers are added and the sample placed at 4°C to precipitate proteins. Supernatant is recovered after 15min spin

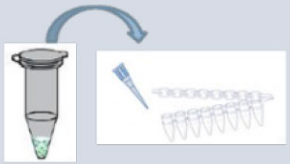
Repeat 3 times

500µL

10min

The supernatant is placed on a silica column to bind released DNA. The liquid go through the column by spinning. After the second sample addition and spinning the DNA is eluat in a final volume of 100µL

5µL DNA + 45µL PCR mix



After elution, 5µL of DNA solution is added to 45µL of PCR mix. Tubes are ready for PCR

PCR amplification and Detection

In lab by a qPCR system