

Ultrasonic lysis

Volumetric dispensing tubes and nucleic acid release reagent



A consumable set for ultrasonic direct amplification. The sample stays in the original tube, lysis takes about a minute, and pre-aliquoted or lyophilized PCR reagent is dispensed straight into the reaction tube. For professional use. Confirm instrument fit and the regulatory file for your market.

About 1 minute

Ultrasonic lysis on the original sampling tube.

Within 30 minutes

One sample addition, then amplification and a result.

Over 99%

Agreement with magnetic-bead extraction, as published.

What the set is for

Stat or batch

Immediate testing when a sample arrives, or a high-throughput run from the same consumable.

No manual mix

Pre-aliquoted or lyophilized PCR reagent. Load 10–25 μ L into the PCR tube.

Matched pair

The release reagent is made for this protocol and for the volumetric dropper. Store it at room temperature.

The same release step is also described for animal and plant epidemic samples, when the work is on-site sampling and on-site detection. Respiratory and reproductive-tract pathogens are the human IVD use named on the product sheet.

Specifications

Ultrasonic lysis · Published figures from the product sheet

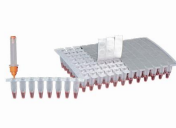
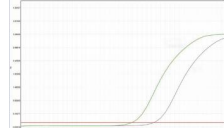
Item	Published figure
Lysis time	About 1 minute. One-click ultrasonic treatment, about 60 seconds.
Time to result	Within 30 minutes after the single sample-addition step.
Vs magnetic bead	Coincidence rate over 99%.
Tube compatibility	About 90% of ultrasonic instruments, as stated by the supplier.
Dispense volumes	5–10 μ L, 15 μ L, 20 μ L and 25 μ L.
Dispense error	Less than 2 μ L, including repeated dispensing.
PCR load volume	10–25 μ L of pre-aliquoted or lyophilized reagent.
Release reagent	For the ultrasonic direct protocol. Room-temperature storage.
Sample path	Original tube. No separate extraction tube for the ultrasonic step.

Nucleic acid release reagent

Made for the ultrasonic direct protocol and matched to the volumetric dropper. Dispense volume is controlled. The reagent is stored at room temperature.



Operation

 <p>1 Sample</p> <p>Add the swab sample to the volumetric dropper, or another recommended preservation tube.</p>	 <p>2 Lyse</p> <p>Load the original tube. One-click start. About 60 seconds.</p>	 <p>3 Dispense</p> <p>Pre-aliquoted or lyophilized PCR reagent, 10–25 μL, into the PCR tube.</p>	 <p>4 Amplify</p> <p>Load the instrument and read the result.</p>
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Compared with other extraction methods

Method	Extraction	Reaction system
Ultrasonic lysis	About 1 minute. Low cost. Original sampling tube.	Pre-aliquoted or lyophilized PCR reagent.
Boiling	About 30 minutes. Manual and slow.	Reagent mixed and aliquoted by hand.
Magnetic bead	Automatic, typically 20–30 minutes.	Conventional PCR mix, prepared and aliquoted.
Release agent	Lower yield. Needs a separate sampling tube.	Manual preparation, pipetting error, waste.