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microzone

MicroLYSIS-RNA

Rapid Sample Lysis & direct to RT-qPCR

Description:

MicroLYSIS RNA is designed to release viral RNA from different sample types – including nasopharyngeal, throat swabs and saliva. MicroLYSIS RNA works with dry swabs, viral transport medium and saliva.

Some collection systems (sputum and viral transport media) **may** contain RT-qPCR inhibitors. Inhibitor free lysate can be used directly in a RT-qPCR reaction. In the presences of inhibitors, the lysate may be diluted in molecular biology grade water (such as Just Water from Microzone) to increase reaction efficiency.

Precautions:

Samples are potentially infectious. All steps must be carried out using appropriate safety measures.

Kit Content:

Supplied:

- Bottle of MicroLYSIS RNA - 1x Concentrated. MicroLYSIS RNA can be stored at 4°C. For long term storage we recommend -20°C

Required but not supplied:

- Eppendorf type tubes with cap
- Pipettes capable of dispensing 30µl to 400µl.
- Vortex mixer
- Incubator capable of heating to 95°C (Dry bath, Thermocyclyer…..)

Protocols:

Dry Swabs: Using 1x concentrated MicroLYSIS RNA

1. In an appropriate 1.5ml Eppendorf type tube or other tube with cap, add swab and cut off tip.
2. Add 200µl PBS and 200µl MicroLYSIS RNA (or enough to cover the swab and be able to collect 200ul post RT incubation) and close the tube.
3. Vortex.
4. Incubate at RT for 5 minutes.
5. Take 200µl of the remaining fluid and transfer in to a new 1.5ml Eppendorf type tube. Close lid.
6. Incubate at 95°C for 10 minutes.
7. The lysate is now ready for use in RT-qPCR.

For the Co-Diagnostic Kit.
Final reaction volume 10µl

- 5µl RT-qPCR mastermix
- Add up to 5µl of Lysis supernatant.
- If using less than 5µl, then make up to 5µl with molecular biology grade water (Microzone's Just Water).

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Swabs transported in Viral Transport Media:

1. In an appropriate tube with cap, add 100µl of swab media and 100µl MicroLYSIS RNA.
2. Close the tube with the cap.
3. Vortex the mixture.
4. Incubate at RT for 5 minutes.
5. Incubate at 95°C for 10 minutes.
6. The supernatant is now ready for use in RT-qPCR.

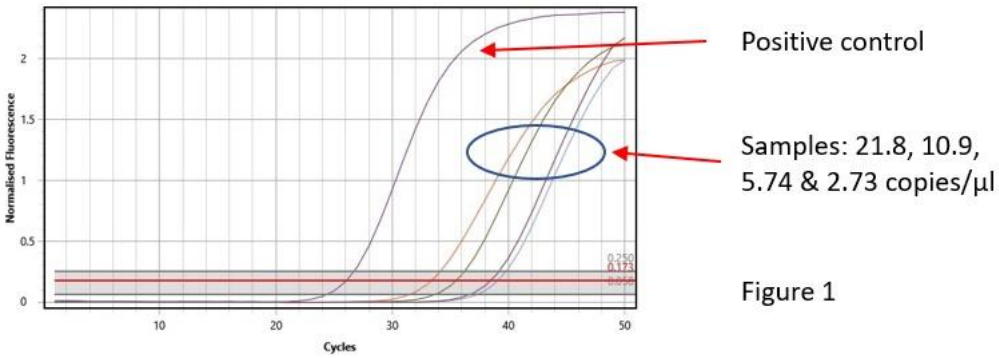

Figure 1

Figure 1 shows amplification of RNA from SARS-CoV-19 virus diluted in ViroCult® transport medium, treated with MicroLYSIS RNA and added neat to the Co-Diagnostic Logix Smart COVID-19 RT-qPCR Kit.

NOTE: Commercial viral transport mediums may contain inhibitors to either reverse transcription or qPCR. We recommend running an initial serial dilution using molecular biology grade water to test which dilution gives best amplification. If there is inhibition in the neat sample, then dilution will increase efficiency of the RT-qPCR.

Saliva:

1. In an appropriate tube with cap, add 100µl of sputum and 100µl MicroLYSIS-RNA.
2. Close the tube with the cap.
3. Vortex the mixture
4. Incubate at RT for 5 minutes.
5. Incubate at 95°C for 10 minutes.
6. The supernatant is now ready for use in RT-qPCR

For the Co-Diagnostic Kit.
Final reaction volume 10µl

- 5 µl RT-qPCR mastermix
- Add up to 5 µl of lysis supernatant. If using less than 5µl, then make up to 5µl with molecular biology grade water.

NOTE: Commercial saliva collection devices may contain inhibitors to RT or qPCR. We recommend running an initial serial dilution using molecular biology grade water (such as Microzone's Just Water) to test which dilution gives best amplification. If there is inhibition in the neat sample, then dilution will increase efficiency of the RT-qPCR.

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