SUGENOMICS
Biotechnology

Quick DNA/RNA Extraction Solution

Catalog No	Size
• NA04A100	5 ml

Description:
Quick DNA/RNA Extraction Solution provides a fast, simple, and inexpensive method for preparing genomic DNA/RNA for PCR, RealTime PCR, and Loop mediated isothermal AMPlification (LAMP) in just 5 minutes. DNA/RNA extraction requires only heat treatment to lyse the cellular or tissue material, release the DNA, and degrade compounds inhibitory to amplification. Following heat treatment, the sample DNA/RNA is ready for downstream applications.

Quick DNA/RNA Extraction Solution can be used with samples such as hair follicles, quill-end cells of feathers, tissue-culture cells, buccal cells, zebrafish organs and scales, mouse tail snips, viral transport medium (VTM), mouth wash/gargle solution and more.

The extracted DNA/RNA is suitable for PCR-based analysis, such as: genomic, transgenic, or viral DNA screening in animals; genetic or environmental research and screening in humans and other organisms; and CRISPR/Cas9 library screening.

Kit Components:

Components	NA04A100
Quick DNA/RNA Extraction Solution	**5 X 1 ml (100 prep)**

Storage Conditions:
Store all contents at -20ºC in a freezer.

Recommended Protocol:
Quick DNA/RNA Extraction Solution should be thawed on ice, gently mixed and briefly centrifuged before use.

1. Take 50 µl Quick DNA/RNA Extraction Solution in a microcentrifuge tube.
2. Place one sample in each tube, for example:
   a. 10^4 counted tissue or culture cells
   b. a 0.5–1 cm region of a single plucked human hair with follicle
   c. a 0.5–1 cm section of a mouse tail snip, finely diced using a fresh blade
   d. one single bacteri colony picked from a plate
   e. Add 50 µl buccal swab cells
   f. Add 50 µl viral transport medium (VTM) or mouth wash/gargle solution
3. Mix by vortexing for 15 seconds.
4. Incubate the mix at 95 ºC for 5 minutes.
5. Store the DNA/RNA at –20°C for up to 1 week, or at –70°C for longer periods.
6. Use 5 µl or less extracted DNA/RNA sample for additional applications such as PCR, RT-PCR, qPCR, LAMP or etc.

Quality Control:

Figure 1. RT-PCR amplification of the VTM samples. First lane is 100 bp marker, and 10 µl, 20 µl, 30 µl and 50 µl VTM solution used with 50 µl Quick DNA/RNA Extraction Solution, respectively then incubated with 95ºC, 5 minutes.

Figure 2. qRT-PCR amplification of the VTM sample. 50 µl VTM solution used with 50 µl ViroQuick solution incubated with 95 ºC 5 minutes. 5 µl of the mixture was used as an RNA template for the qPCR.

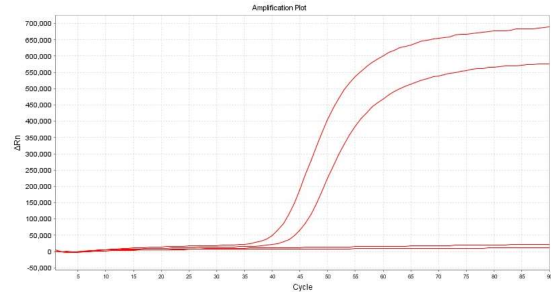
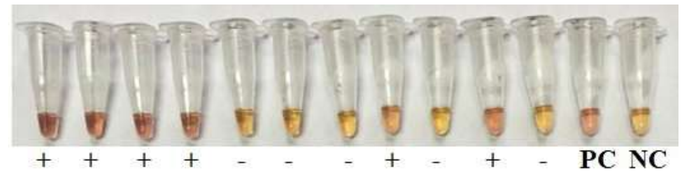


Figure 3. LAMP amplification of the VTM samples. 50 µl VTM solution used with 50 µl Quick DNA/RNA Extraction Solution incubated with 95 ºC 5 minutes. 5 µl of the mixture was used as an DNA template.
(+): Positive results, (-): Negative results, PC: Positive Control, NC: Negative Control.



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