

Automated purification of high-quality pathogen DNA/RNA from infected whole blood using GENTi™ Advanced Viral DNA/RNA Extraction Kit

Experimental Conditions

Materials Required

- ♦ GENTi™ 32 Advanced Automatic Extraction System (GTI032A)
- ♦ GENTi™ Advanced Viral DNA/RNA Extraction Kit (902-048A/902-096A)
- ♦ Pipette & sterile pipette tips
- ♦ Suitable protector (e.g., lab coat, disposable gloves, goggles, etc.)

Sample Information

- ♦ Sample type: whole blood infected with pathogen
 - Bacterial DNA: *Mycoplasma gallisepticum* (MG)
 - Viral RNA: Infectious bronchitis virus (IBV)
- ♦ Extraction conditions
 - Sample amount: 200 µl
 - Elution volume: 100 µl
 - Extraction protocol: Viral_Normal (operation time : 29' 35")

Sample Preparation

1. Prepare each whole blood infected with IBV or MG.
2. The next step is according to **GENTi™ Advanced Viral DNA/RNA Extraction Kit protocol**.

Protocol

GENTi™ Advanced Viral DNA/RNA Extraction Kit Protocol

* For more details and methods, please refer to the handbook of GENTi™ Advanced Viral DNA/RNA Extraction Kit.

1. Add 7 µl of dissolved Carrier RNA (1 µg/µl) to 1st/7th well of plate type cartridge.
2. Add 200 µl of samples to 1st/7th well.
3. Load the plate type cartridge on the tray of GENTi™ 32 Advanced Automatic Extraction System.
4. Insert the magnetic rod cover to the end to strip bracket.
5. Select the correct extraction protocol and operate the extraction system.

Result

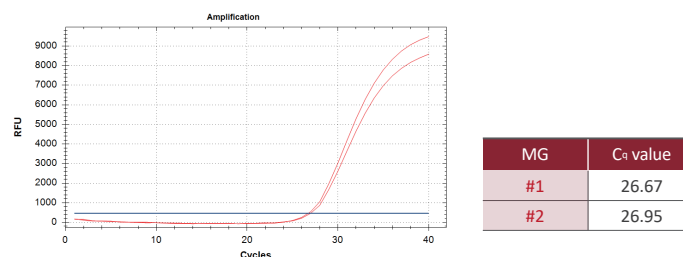


Figure 1. Result of C_q value of DNA template extracted from infected whole blood.
The DNA template was extracted from the whole blood infected with *Mycoplasma gallisepticum* (MG) using GENTi™ Advanced Viral DNA/RNA Extraction Kit on GENTi™ 32 Advanced Automatic Extraction System. Eluted DNA template were analyzed with a TaqMan-based real-time PCR assay using CFX-96. Two repeat tests were performed for each sample.

- Real-time PCR system: CFX-96™ System (1855201)
- qPCR kit: Probe qPCR Mix (RR391A)
- Target gene: none specific

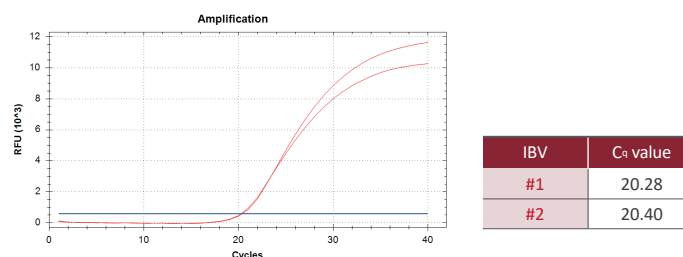


Figure 2. Result of C_q value of RNA template extracted from infected whole blood.
The RNA templates were extracted from the whole blood infected with Infectious bronchitis virus (IBV) using GENTi™ Advanced Viral DNA/RNA Extraction Kit on GENTi™ 32 Advanced Automatic Extraction System. Eluted RNA template were synthesized to cDNA with reverse transcription; and then analyzed with TaqMan-based one-step RT-qPCR assay using CFX-96. Two repeat tests were performed for each sample.

- Real-time PCR system: CFX-96™ System (1855201)
- RT-qPCR kit: GeneAll® HyperScript™ 2X One-step RT-PCR Master Mix (602-110)
- Target gene: none specific