

All YOU Need IS ONE

“Best fit for **ANY** types of samples”



G-spin™ Total DNA Extraction Mini Kit for Genomic DNA

Patho Gene-spin™ DNA/RNA Extraction Kit for Viral DNA/RNA

1. Advantages

All types of samples

- Target : Wide range of biological samples from whole blood, cell, tissue, gram (-) bacteria
- Speed : Only 20-30 min to complete extraction
- Including 8 kinds of protocols
- Whole blood sample used without RBC lysis

All pathogenic samples

- Convenience and target : One kit for RNA and DNA, suitable for a wide range of pathogen sample types
- Stability : Easy extraction without adding enzymes or mercaptoethanol
- Maximized DNA/RNA Recovery : Chaotropic salt in lysis buffer inactivates DNase/RNase to ensure isolation of intact DNA/RNA.

2. Descriptions

A simple genomic DNA extraction kit for animal cell culture, blood, animal tissue, rodent tail, ossification formation, hair root, hair and even gram negative bacteria. It offers a lysis buffer and binding buffer to extract high yield, high purity DNA from a variety of samples. In particular, whole blood is not needed to process RBC lysis step. The efficient inhibitor removal system can prevent negative influences and thus it is optimized for PCR. Optimized protocols for a variety of samples allow highly reproducible results. The G-spin™ Total DNA Extraction kit is fully verified for use with a variety of samples.

- **Application** : Human genetic research, cancer research, etc.

Total DNA/RNA can be extracted from various pathogen samples like virus and bacteria, even anticoagulated plasma/blood, serum, cell-free body fluids and pathogenic cell/tissue. Uses a low concentration of chaotropic salt and has a better lysis efficiency unlike conventional Total RNA Extraction products. It is easy to induce lysis without any additive like mercaptoethanol. In addition, DNA/RNA extraction is faster and more efficient by using columns including silica-gel membrane. The DNA/RNA isolated by the Patho Gene-spin™ Kit can be used for clinical diagnosis of people and animals infected with diseases caused by viruses and bacteria.

- **Application** : Infectious disease research, pathogen detection, cDNA synthesis, etc.



Cat.No	Size	Type	Storage
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17045 /17046	50 / 200 col	Spin	RT
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Cat.No	Size	Type	Storage
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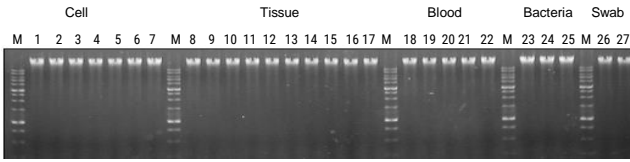
17154	50col	Spin	RT
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Technical Data

G-spin™ Total DNA Extraction Mini Kit

Patho Gene-spin™ DNA/RNA Extraction Kit

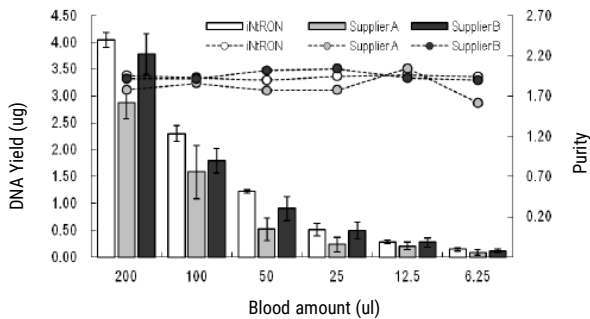
1) Gel electrophoresis after extractions from various samples



After loading 100ng of extracted DNA using G-spin™ Total Genomic DNA Extraction Mini Kit on 0.8 % agarose gel(including 1X RedSafe), intact genomic DNA is identified.

Lane M, DNA Marker, lane 1, K562 cell; lane 2, SNU-1 cell; lane 3, U937 cell; lane 4, HeLa cell; lane 5, NIH/3T3 cell; lane 6, Vero cell; lane 7, B16 cell; lane 8, Liver(mouse); lane 9, Heart (mouse); lane 10, Lung(mouse); lane 11, Brain(mouse); lane 12, Kidney(mouse); lane 13, Spleen(mouse); lane 14, muscle(mouse); lane 15, stomach(mouse); lane 16, Tail(mouse); lane 17, Hair(human); lane 18, blood(treated EDTA); lane 19, blood(treated Heparin); lane 20, blood(treated citrate); lane 21, Buffy coat 1; lane 22, Buffy coat 2; lane 23, E. coli; lane 24, P. aeruginosa; lane 25, S. gallinarium; lane 26, Blood swab; lane 27, Buccal swab

2) DNA extraction test regarding to blood sample



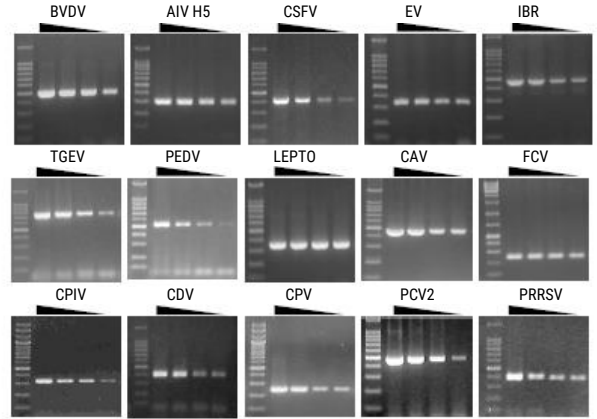
In order to observe efficiency of genomic DNA extraction from blood, comparison data between competitors was obtained. Purity of extracted DNA was high when DNA was extracted from 6.25 µl to 200ul of blood volume. Efficiency of DNA extraction was excellent.

3) Protocols of G-spin™ Total DNA Extraction Mini Kit

Samples	Protocol Type
Blood, Body Fluids	Type A Protocol
Tissues, Rodent tail	Type B Protocol
Cell, Buffy coat, Bacteria	Type C Protocol
Dried Blood Spots	Type D Protocol
Fixed Tissues	Type E Protocol
Bacteria	Type F Protocol
Biological swabs	Type G Protocol
Animal Hair	Type H Protocol

8 different types of protocols are included in kit. Any types of sample can be extracted with this extraction method.

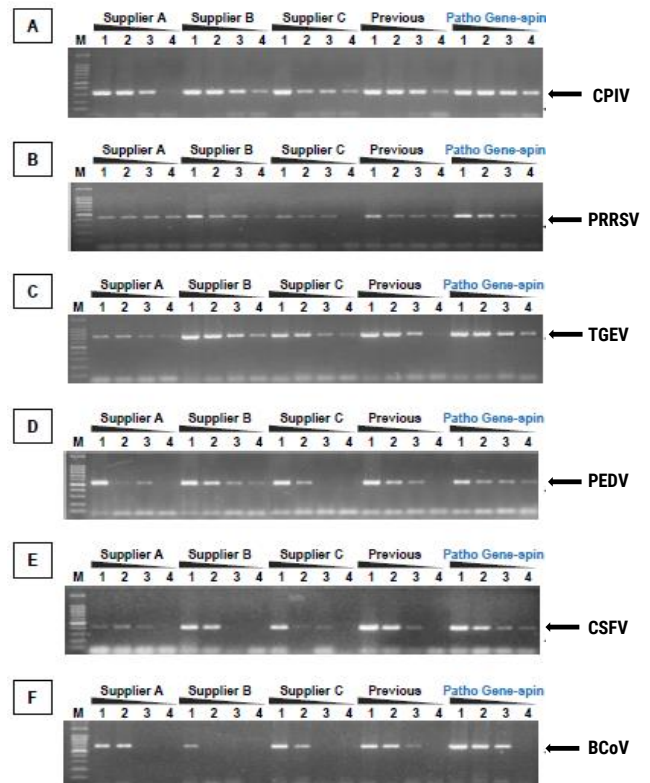
1) Amplification after extractions from various samples



Total DNA/RNA samples were used 1/10 diluted with PBS Buffer, than pathogen from the samples were extracted with Patho Gene-spin™ DNA/RNA Extraction Kit. After extraction, each of 5 µl of extracted DNA/RNA were used as template of PCR/RT-PCR analysis.

Amplification for pathogen genomic extraction with Maxime PCR PreMix Kit(i-StarTaq) or Maxime RT-PCR PreMix Kit from iNtRON

2) Amplification efficiency In PCR/RT-PCR conditions



RT-PCR Amplification for several virus detection with Maxime RT-PCR PreMix Kit of iNtRON Panel A, Canine parainfluenza virus; Panel B, Porcine reproductive & respiratory syndrome virus; Panel C, Transmissible gastroenteritis virus; Panel D, Porcine epidemic diarrhea virus; Panel E, Classical swine fever virus; Panel F, Bovine Corona virus