Favorgen DNA/RNA Extraction Kit

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ADVANTAGES

1. Produced by the state-of-the-art manufacturing facilities and in the clean room.

ADVANTAGES

2. Complete Product Lines.

A. Column System:

I. DNA Purification/Extraction Kit

II. Total RNA Extraction Kit

III. Viral Nucleic Acid Extraction Kit

B. Magnetic Bead System:

C. 96 Well

D. Reagent

3. Provide ODM service for special technical requirement.

I. DNA Extraction/ Purification Kit

Post Reaction DNA Extraction

1. **Plasmid DNA Extraction Kit**
   - ---Mini (Preps: 100, 300)
   - ---Midi (Preps: 25, 50), **Ion Exchange
   - ---Maxi (Preps: 10, 25), **Ion Exchange
2. **Gel DNA Extraction Kit** ---Mini (Preps: 50, 200)
3. **PCR Clean-Up Kit** ---Mini (Preps: 50, 200)
4. **Gel/PCR DNA Purification Kit** ---Mini (Preps: 100, 300)
5. **MicroElute Gel/PCR DNA Purification Kit--- (Preps: 50, 200)**

Genomic DNA Extraction

6. **Blood Genomic DNA Extraction Kit**
   (Blood/ Cultured Cell/ Buffy Coat)
   - ---Mini (Preps: 50, 100)
   - ---Midi (Preps: 20, 50)
   - ---Maxi (Preps: 10, 24)
7. **Tissue Genomic DNA Extraction Kit** ---Mini (Preps: 50, 100)
   (Tissue/ Bacteria, G^+ G^-/ Fixed Tissue (paraffin -embedded, formalin-fixed/Yeast/ Dried blood spot)
8. **Plant Genomic DNA Extraction Kit**
   (Plant tissue/ Fungi)
   - ---Mini (Preps: 50, 100)
   - ---Maxi (Preps: 24)
9. **Stool DNA Extraction Kit** ---Mini (Preps: 50, 100)
10. **Soil DNA Extraction Kit**
    - ---Mini (Preps: 50, 100)
    - ---Midi (Preps: 20, 50)

II. Total RNA Extraction Kit

1.Total RNA Extraction Kit (Cultured Cells/ Bacteria/ Yeast/ Animal tissue)	---Mini (Preps: 50, 100) ---Midi (Preps: 20, 50) ---Maxi (Preps: 10, 24)
2.Blood Total RNA Extraction Kit (Blood/Cultured Cells)	---Mini (Preps: 50, 100) ---Midi (Preps: 20, 50) ---Maxi (Preps: 10, 24)
3.Plant Total RNA Extraction Kit (Plant tissue/ Fungi)	---Mini (Preps: 50, 100) ---Maxi (Preps: 10, 24)
4.Woody Plant Total RNA Extraction Kit	---Mini (Preps: 50, 100)
5.RNA Clean-Up Kit	---Mini (Preps: 50, 200)
6. After Tri-Reagent RNA Clean-Up Kit	---Mini (Preps: 50, 200)

III. Viral Nucleic Acid Extraction Kit

1.Viral Nucleic Acid Extraction	---Mini (Preps: 50, 100)

Complete Product Lines-DNA Purification /Extraction Kit

1. Plasmid DNA Extraction (Mini)

specifications:

1. **Sample:** 1-5 ml bacterial culture
2. **Format:** Spin columns
3. **Operation:** centrifuge/ vacuum
4. **Binding capacity:**
   20-30 ug for high-copy plasmid
   3-10 ug for low-copy plasmid
5. **Expectant Yield:** up to 30 ug
6. **Operation time: 20 minutes**

Applications:

a. fluorescent or radioactive
b. sequencing restriction digestion
c. library screening
d. ligation and transformation

Features:

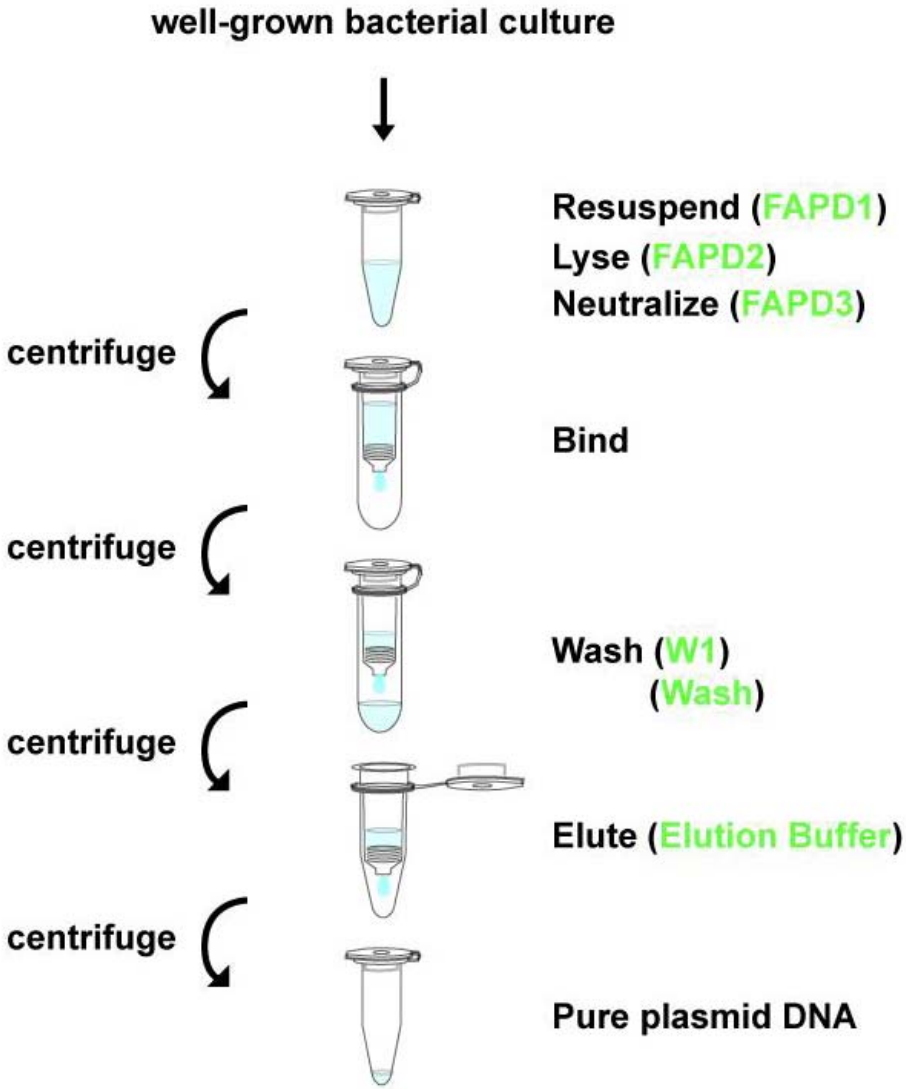
1. Safe:
Eliminate the use of phenol, chloroform, ethidium bromide, and cesium chloride, minimizing exposure to and dispossal of hazardous materials.

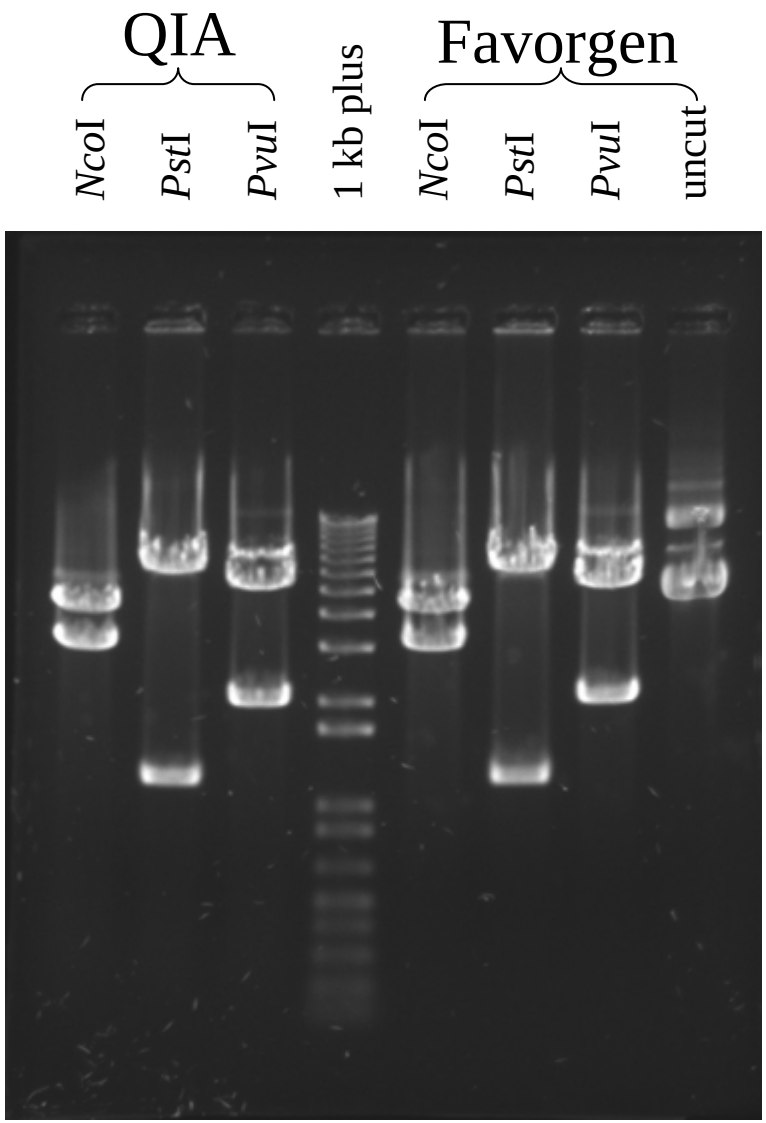
2. Easy to use:
Convenient spin column format. It can be used by centrifuge and vacuum.

3. High yield and superior purity.

4. Effective purification of DNA fragments ranging from 100bp to 12^{+}Kb

Plasmid DNA Extraction (Mini)
Brief Procedure




QIA
Favorgen
NcoI
PstI
PvuI
1 kb plus
NcoI
PstI
PvuI
uncut

1.PCR Analysis of Extracted Plasmid

Legionella pneumophila 之plasmid DNA（overnight culture at37℃）

Serial Dilution（10^{-2}、10^{-4}、10^{-6}、10^{-8}）

QIAprep Spin Miniprep Kit

PCR（specific primer）

Electrophoresis

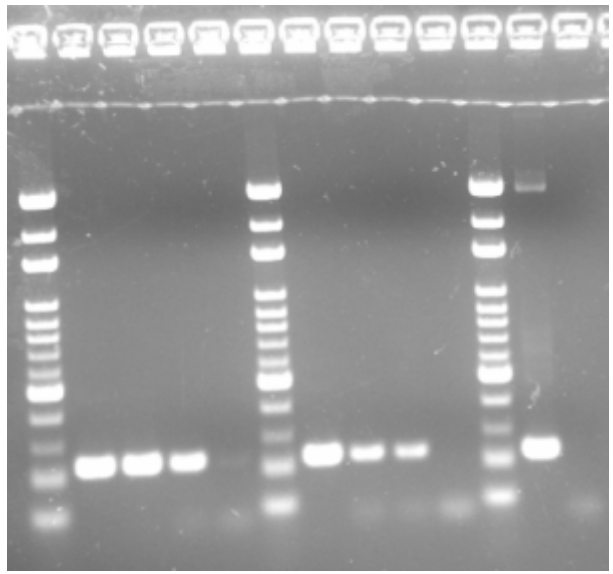
Favorgen Plasmid DNA Ext. Mini Kit

PCR（specific primer）

Electrophoresis

Result：

Favorgen $10^{-2}10^{-4}10^{-6}10^{-8}$ QIAGEN $10^{-2}10^{-4}10^{-6}10^{-8}$ QIAGEN 1X NC



Plasmid DNA Extraction (Midi) Ion Exchange

Plasmid DNA Extraction (Maxi) Ion Exchange

Specifications:

	Plasmid	Culture Volume	Elution Volume	Yields
Midi	High copy number	50 ml	100 µl	Up to 200 µg
	Low copy number	100 ml	100 µl	Up to 200 µg
Maxi	High copy number	100 ml	300 µl	Up to 500 µg
	Low copy number	250 ml	300 µl	Up to 500 µg

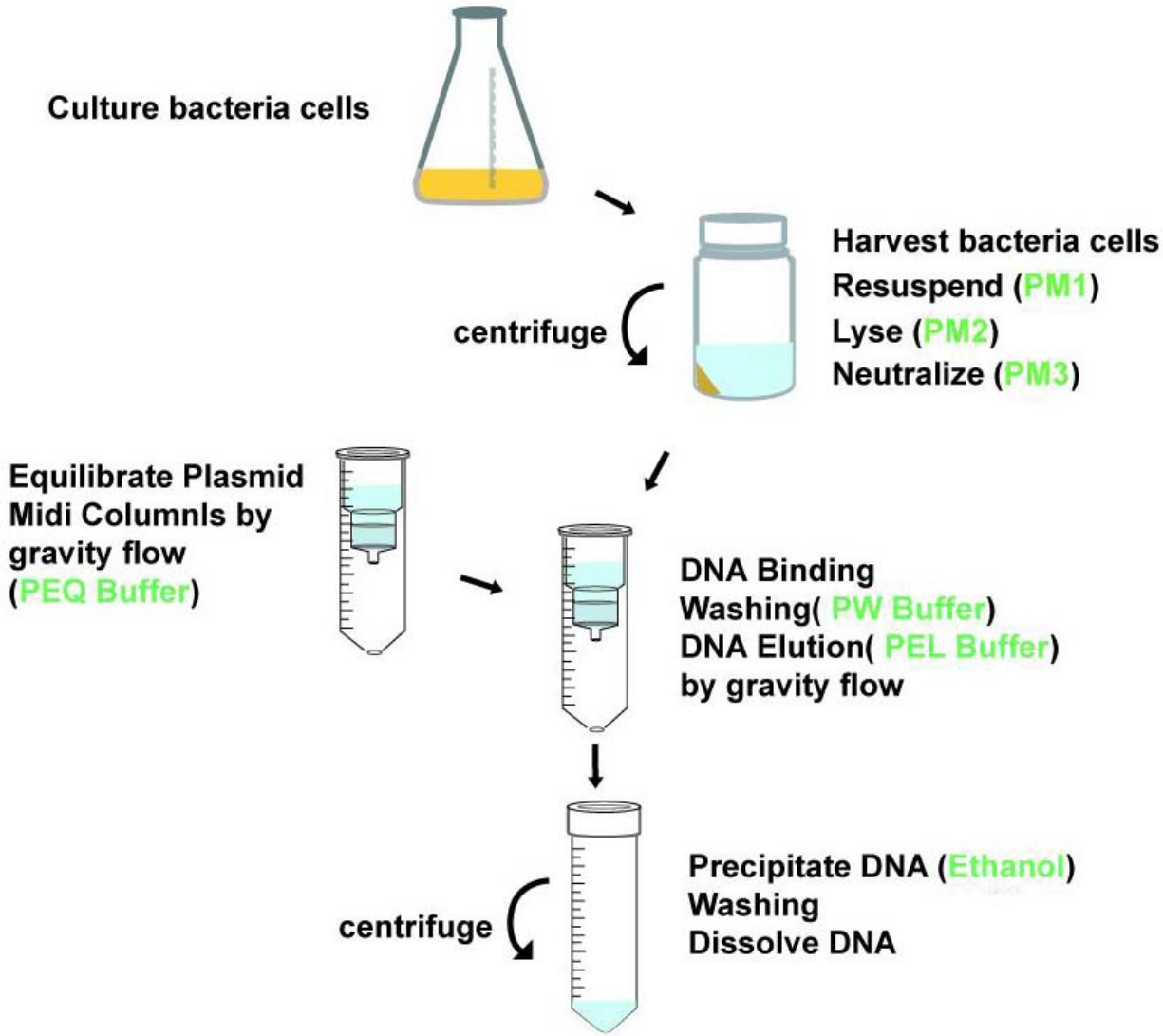
Features:

1. **Purity:** Equal to that obtained by 2X CsCl-gradient centrifugation.
2. **Save:** Eliminates the use of phenol, chloroform, ethidium bromide, and cesium chloride, minimizing exposure to, and disposal of hazardous materials.
3. **Time saving:** complete the process in less than 120 minutes.

Applications:

Trasfection, Sequencing, *in vitro* Transcription, Restriction enzyme digestion

Plasmid DNA Extraction (Maxi)
Brief Procedure



Complete Product Lines-DNA Purification /Extraction Kit

1. FavorFilter Plasmid DNA Extraction (Maxi)

specifications:

1. **Sample Size:** Up to 500 μg
2. **Format:** Ion Exchange
3. **Operation:** centrifuge
4. **Expectant Yield:** 100 ~250ml cultured volume
5. **Operation time: 90 minutes**

Features:

1. **Time saving:**
   Cleared lysate without centrifugation

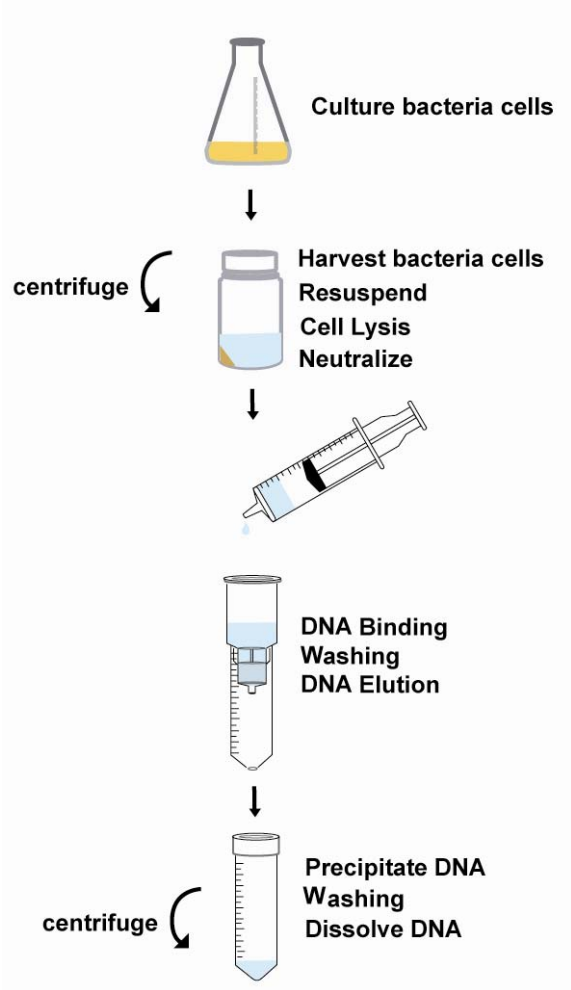
2. **High Purity:**
   Equal to that obtained by 2x CsCl gradient centrifugation.

3. **Safe:**
   Eliminates the use of phenol, chloroform, ethidium bromide, and cesium chloride, minimizing exposure to and disposal of hazardous materials.

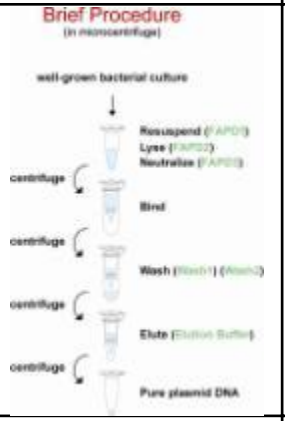
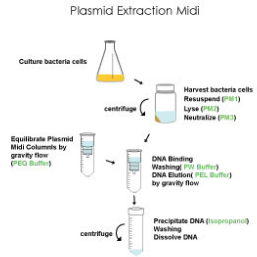
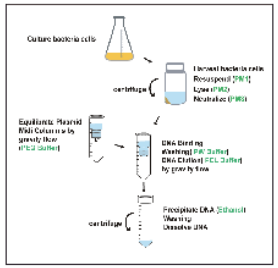
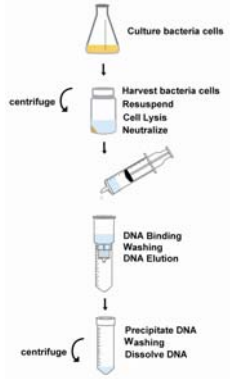
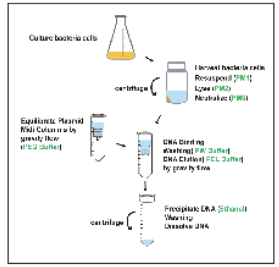
Applications:

a. Transfection (non-endotoxin sensitive)
b. Microinjection
c. In Virto transcription
d. Restriction Enzyme digestion

FavorFilter Plasmid DNA Extraction Kit
Brief Procedure



Complete Product Lines- Column System-Plasmid DNA Purification

	Mini	Midi	Maxi	Maxi (FavorFilter)	Maxi (endotoxin-free)
					
Usage:	High purity plasmid mini preparation	High purity plasmid midi preparation	High purity plasmid maxi preparation	High purity plasmid maxi preparation	High purity plasmid mzxi preparation
Sample:	1-5 ml bacterial culture	25-150 ml bacterial culture	100-400 ml Plasmid DNA from E. coli.	100-250 ml cultured volume	100-250 ml cultured volume
Format:	Spin columns	Ion-Exchange Resin Column	Ion-Exchange Resin Column	Ion-Exchange Resin Column	Ion-Exchange Resin Column
Operation:	centrifuge/ vacuum	Gravity-Flow	Gravity-Flow	Gravity-Flow	Gravity-Flow
Binding capacity:	20-30 ug for high-copy plasmid 3-10 ug for low-copy plasmid	100-200 ug for high-copy plasmid 25-100 ug for low-copy plasmid	for high-copy plasmid 300-500 mg bacterial culture for low-copy plasmid 50-250 ug bacterial culture	for high-copy plasmid 300-500 mg bacterial culture for low-copy plasmid 50-250 ug bacterial culture	for high-copy plasmid 300-500 mg bacterial culture for low-copy plasmid 50-250 ug bacterial culture
Expectant Yield:	up to 30 µg	Up to 200 µg	Up to 500 µg	Up to 500 µg	Up to 500 µg
operation time:	20 minutes	Within 120 minutes	Within 120 minutes	Within 90 minutes	Within 120 minutes
Applications:	fluorescent or radioactive sequencing restriction digestion library screening ligation and transformation	Transfection (non-endotoxin sensitive), Sequencing, In Vitro Transcription, Microinjection	Transfection (non-endotoxin sensitive), Sequencing, In Vitro Transcription, Microinjection	Transfection (non-endotoxin sensitive), Sequencing, In Vitro Transcription, Microinjection	Transfection (non-endotoxin sensitive), Sequencing, In Vitro Transcription, Microinjection

Complete Product Lines-Nucleic Acid Extraction Kit

2. Gel Purification Kit

Specifications:

1. Usage:
Rapid extraction of DNA fragments (70 bp - 12 kb) from TAE and TBE agarose gels

2. **Sample:**
Up to **200 mg** agarose gel slice

3. Format: Spin columns

4. Operation: centrifuge/ vacuum

5. Binding capacity: up to 10 ug

6. Expectant recovery:
70~85% for gel extraction
operation time: about 25 minutes

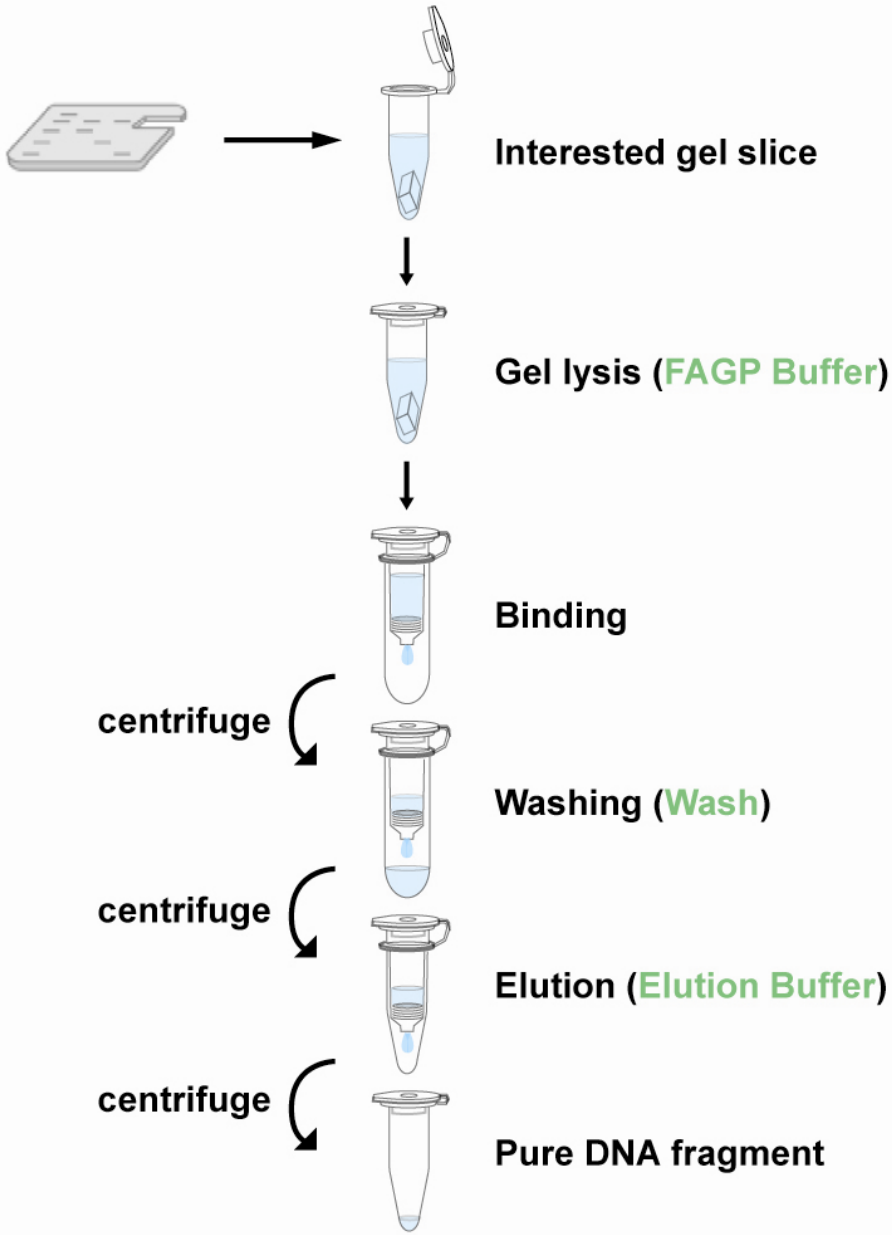
Features:

1. Rapid extractio of DNA fragments from agarose.
2. No phenol/chloroform extraction or ethanol precipitation required.
3. Highly pure DNA (suitable for ligation reactions.)
4. DNA can be eluted with sterile water or TE buffer

Applications:

Purification of DNA from solutions and agarose gels.

Gel DNA Purification Kit



Complete Product Lines-Nucleic Acid Extraction Kit

3. PCR DNA Purification (Clean-up)

Specifications:

1. Usage:
recovery DNA fragments (100 bp - 12 kb) from PCR, restriction digestion and other enzymatic reaction, remove salt and enzymes

2. Sample:
Up to **100 μl** (10-100 μl)PCR product

3. Format: Spin columns

4. Operation: centrifuge/ vacuum

5. Binding capacity: Up to 10 μg

6. Expected recovery:
90-95% for PCR clean up

7. Operation time: about 15 minutes

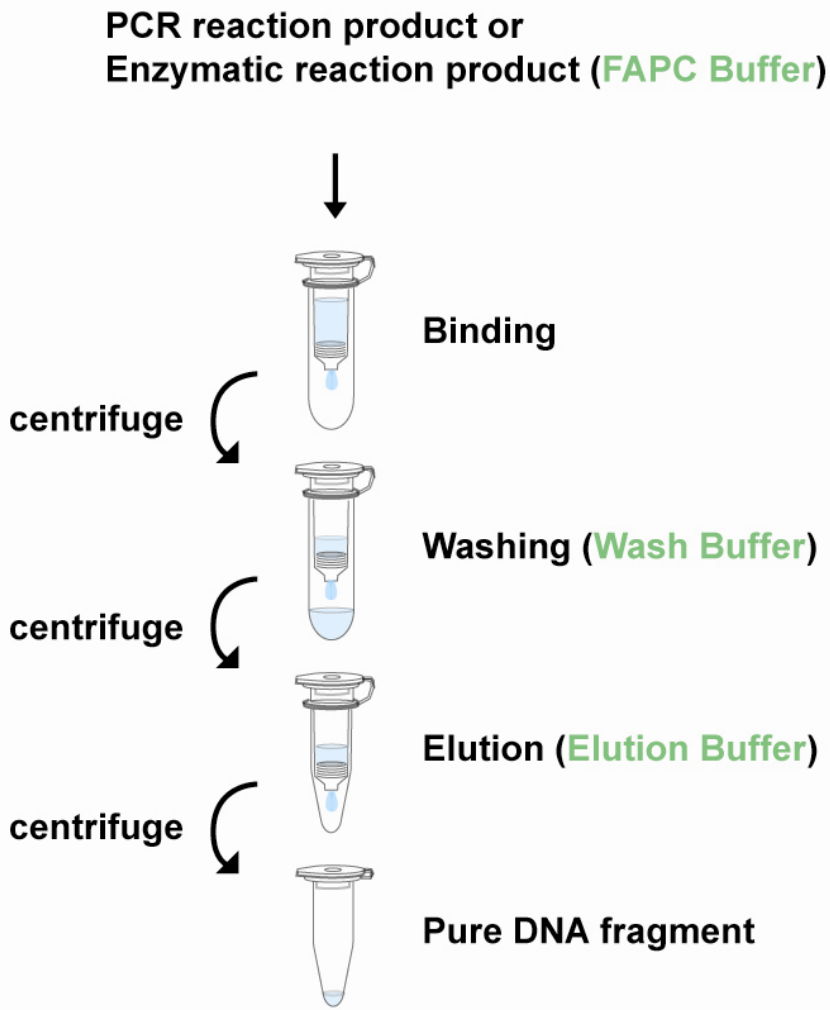
Features:

1. Quick and easy to use, with just three silmple steps.
2. PCR product is eluted into sterile water or elution buffer.
3. No phenol/chloroform extraction or ethanol precipitation required.

Applications:

Sequencing
Ligation
Labeling
Amplification
Enzymatic digestion

PCR Purification Kit



Complete Product Lines-Nucleic Acid Extraction Kit

4. Gel/PCR DNA Extraction

Specifications:

Use:
recovery DNA fragments (70 bp - 12 kb)from agarose gel, PCR, restriction digestion and other enzymatic reaction remove salt and enzymes

Sample:
Up to **300 mg** agarose gel slice
Up to **100** μ**l** PCR product

Format: Spin columns

Operation: centrifuge/ vacuum

Binding capacity: up to 10 μg

Expected recovery:
70-85% for gel extraction
90-95% for PCR clean up

Operation time:
15 minutes for PCR clean up
25 minutes for gel extraction

Features:

1. High Recovery:
70-85% for gel extraction, 90-95% for PCR clean up. With simple steps, quick and easy to use.

2. Time saving:
15 minutes for PCR clean-up, 20 minutes for Gel Extraction.

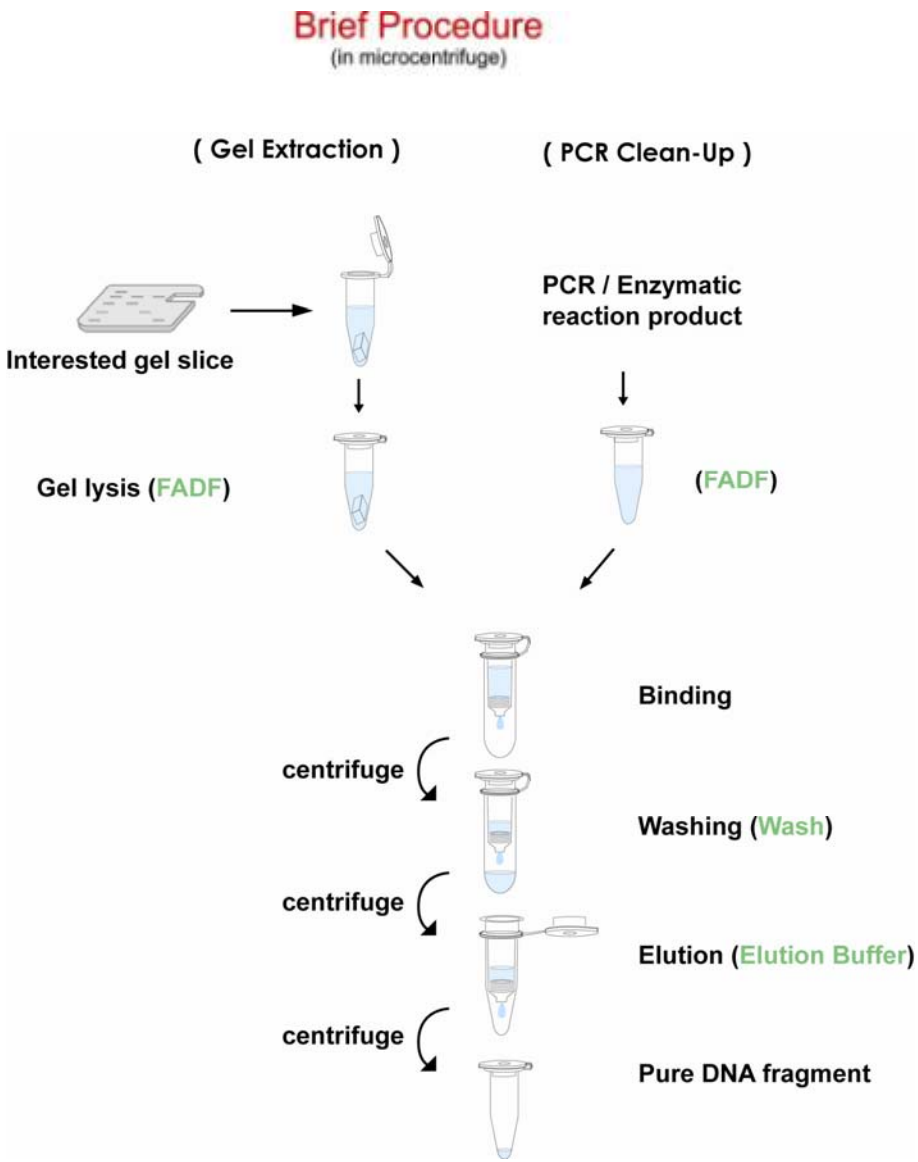
3. Safe:
No phenol/chloroform extraction and ethanol precipitation required.

4. Versatile:
Purify DNA from agarose gels, PCR or other enzymatic reactions. Fragments between 100bp and 10Kb can be purified.

Applications:

PCR
Fluorescent or radioactive sequencing
Restriction digestion
Library screening
Ligation and transformation

Gel/PCR DNA Extraction



Complete Product Lines-Nucleic Acid Extraction Kit

5. MicroElute Gel/PCR DNA Extraction

Specifications:

Use:
recovery DNA fragments (70 bp - 4 kb)from agarose gel, PCR, restriction digestion and other enzymatic reaction remove salt and enzymes

Elution:
★Very Small Elution Volume: 10 μl.

Format: Spin columns

Operation: centrifuge/ vacuum

Binding capacity: up to 5 μg

Expected recovery:
75~85% for Gel extraction
80~90% for PCR purification

Operation time:
15 minutes for PCR purification,
20 minutes for Gel extraction

Features:

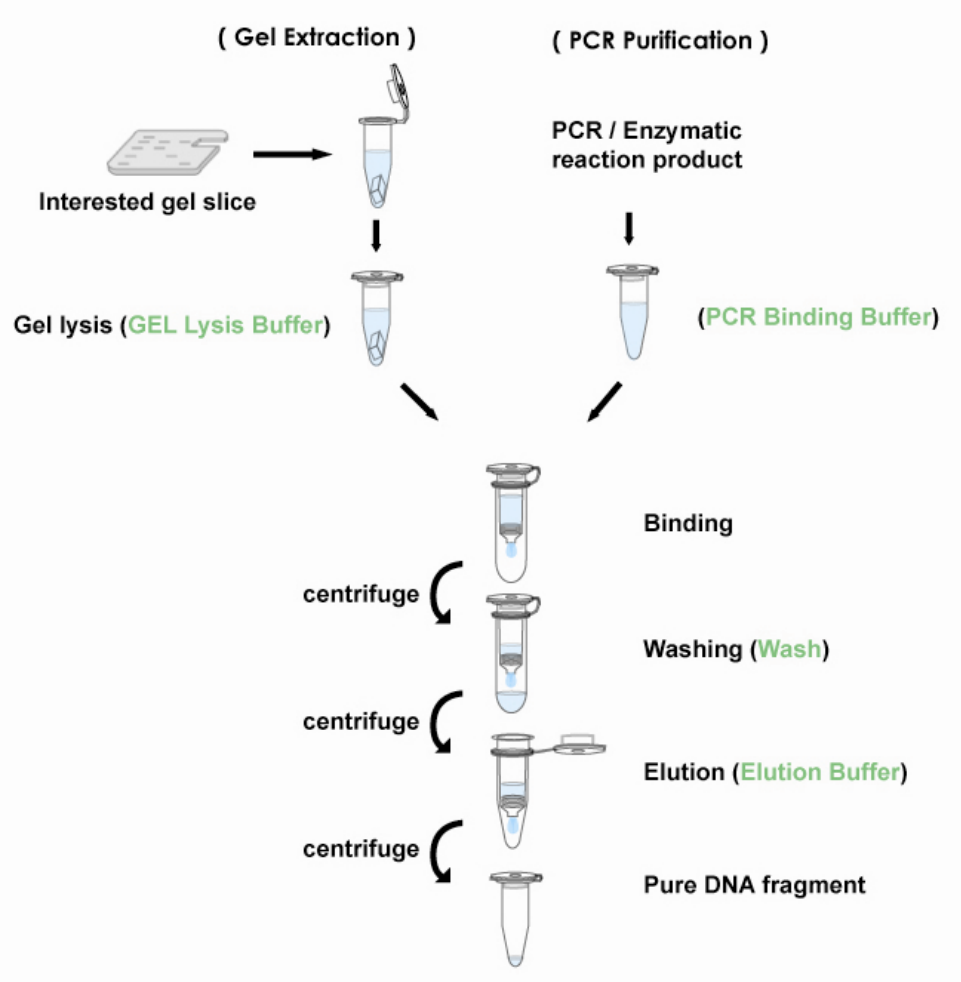
1. **High Purity**
2. **Safe:**
No phenol/chloroform extraction
3. **Time saving:**
15 minutes for PCR clean-up,
20minutes for Gel Extraction.

4. Versatile:
Purify DNA from agarose gels, PCR or other enzymatic reactions. Fragments between 70bp and 4Kb can be purified.

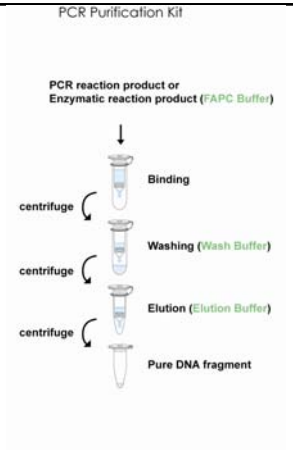
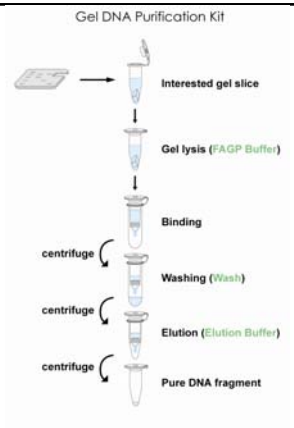
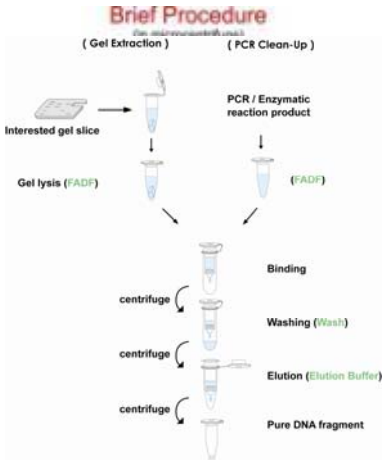
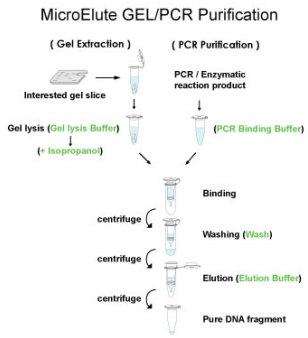
Applications:

Purified DNA is ready for downstream applicatons such as sequencing, ligation, labeling, amplication and enzymatic digestion.

MicroElute GEL/PCR DNA Extraction Kit
Brief Procedure



Complete Product Lines- Column System-Post-Reaction DNA Purification

	PCR Clean-Up	Gel Purification	Gel-PCR Purification	Micro Elute Gel-PCR Purification
Procedure				
Usage:	Clean up of DNA fragments from PCR and other enzymatic products	Rapid extraction of DNA fragments from TAE and TBE Agarose gels	Recovery DNA fragments (100 bp - 10 kb) from agarose gel, PCR, restriction digestion and other enzymatic reaction remove salt and enzymes	recovery DNA fragments (70 bp - 4 kb)from agarose gel, PCR, restriction digestion and other enzymatic reaction remove salt and enzymes
Sample:	PCR products, labeled, modified or digested DNA	DNA in agarose gel, PCR products, Enzyme reaction mixture	Up to 300 mg agarose gel slice Up to 100 μl PCR product	Very Small Elution Volume :10 μl
Format:	Spin columns	Spin columns	Spin columns	Spin columns
Operation:	centrifuge/ vacuum	centrifuge/ vacuum	centrifuge/ vacuum	centrifuge/ vacuum
Binding capacity:	Up to 10 μg	Up to 10 μg	Up to 10 μg	Up to 5 μg
Expectant recovery:	90~95%	70~85%	70-85% for gel extraction 90-95% for PCR clean up	75~85% for Gel extraction 80~90% for PCR purification
DNA Size Range:	100bp ~12Kb	70bp ~12Kb	70bp ~ 12Kb	70bp ~4Kb
operation Time	Within 15minutes	Within 25 minutes	15 minutes for PCR clean up 25 minutes for gel extraction	15 minutes for PCR purification, 20 minutes for Gel extraction
Applications:	Sequencing, Ligation, Labelling, amplification and enzymatic digestion	PCR sequencing, Restriction-enzyme, Digestion, DNA labeling, Ligation, and RNA protection	PCR, Fluorescent or Radioactive Sequencing, Restriction digestion, Library screening, Ligation and Transformation	Purified DNA is ready for downstream applicatons such as sequencing, ligation, labeling, amplication and enzymatic digestion.

Complete Product Lines-Genomic DNA Extraction Kit

6. Blood Genomic DNA Extraction (Mini)

(Blood/ Buffy Coat/ Cultured Cells)

Specifications:

1. Sample size:
Up to 0.2 ml blood sample (FABGK001)
Up to 0.3 ml fresh blood sample (FABGK004)
5 X 10^6 animal cultured cells
10^8 bacteria cultured cells

2. Format: Spin columns

3. Operation: centrifuge/ vacuum

4. Binding capacity: up to 50 μg genomic DNA

5. Expected Yield:
4-12 μg for blood sample
20-40 μg for cultured cells

6. Operation time: about 60 minutes

Features:

1. High Recovery:
Possible to purify between 5-50 μg of genomic DNA.

2. Safe:
No phenol, chloroform extraction or ethanol percipitation required.

3. Time saving:
Within 60 minutes.

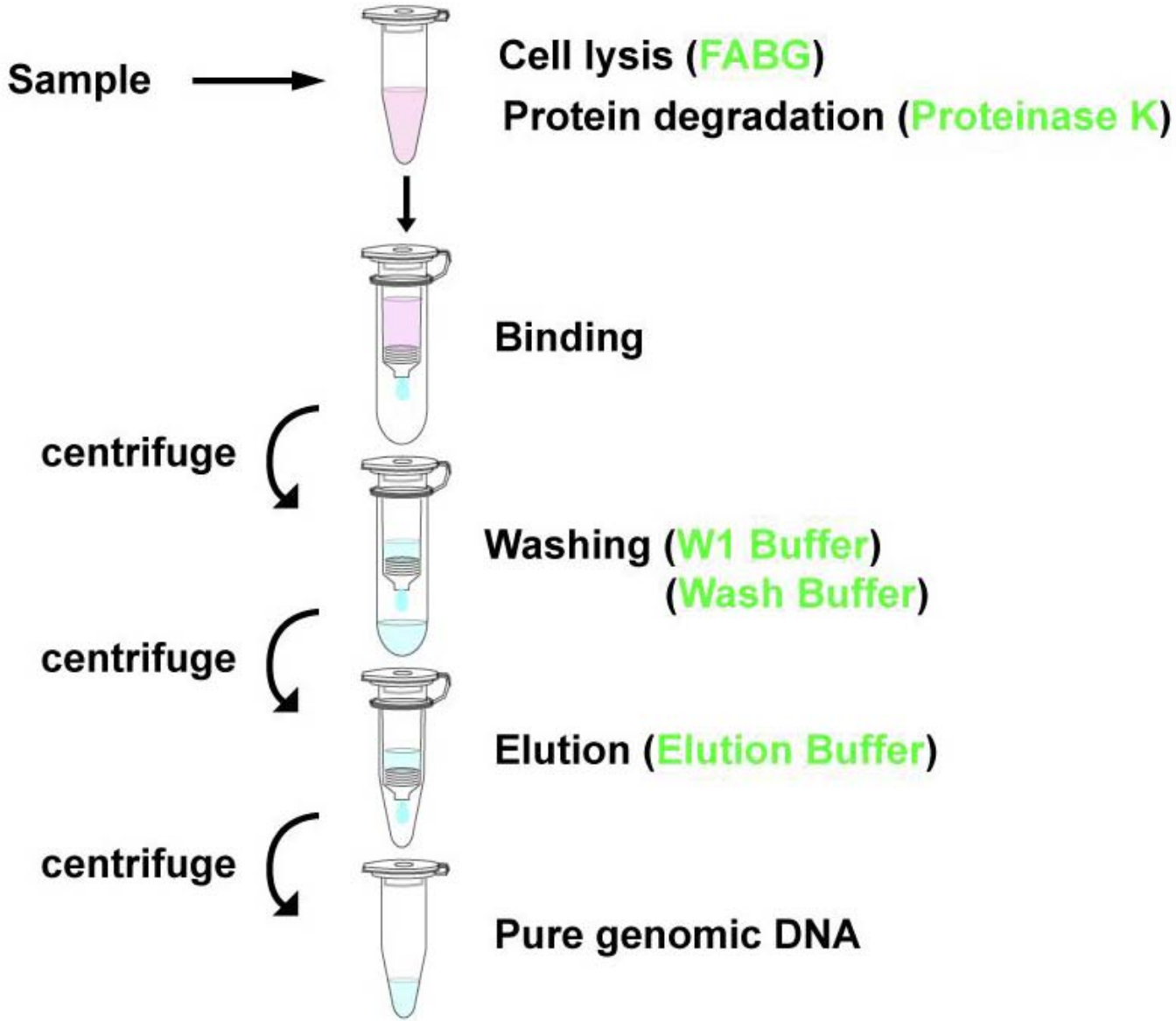
4. Versatile:
Extraction of genomic DNA from whole blood, plasma, serum, buffy coat, body fluids, lymphocytes, cultured cells and bacterial cells.

Applications:

PCR, AFLP, RFLP, Southern blotting, Real-time PCR

****Blood Genomic DNA Extraction (Midi)**
****Blood Genomic DNA Extraction (Mini)**

Blood Genomic DNA Extraction (Mini)
Brief Procedure



Complete Product Lines-Genomic DNA Extraction Kit

6. Blood Genomic DNA Extraction (Midi/Maxi)

(Blood/ Buffy Coat/ Cultured Cells)

Specifications:

1. Sample size:

Midi kit: 0.3-2 ml blood sample
2 X 10^7 animal cultured cells

Maxi kit: up to 10 ml blood sample
5 X 10^7- 1 X 10^8 animal cultured cells

2. Format: Spin columns

3. Operation: centrifuge/ vacuum

4. Binding Capacity of Spin Filter:

Midi kit: up to 150 μg of Genomic DNA

Maxi kit: up to 500 μg of Genomic DNA

5. Expected Yield:

Midi kit: up to 60 μg DNA from whole blood

Maxi kit: up to 500 μg DNA from whole blood

6. Operation time: about 60 minutes

Features:

1. High Purity:

DNA is immediately suitable for a variety of applications, including amplification, digestion, PCR etc.

2. High Speed:

Rapid speed for the isolation of genomic DNA from blood, within 60 minutes.

3. Easy Use:

Based on a five-step process, purities genomic DNA without the use of caustic organic compounds

4. Safe Use：

The kit uses a spin column tube and removes proteins, nucleases in cells.. It is not necessary to treat the sample with harmful organic solvents such as phenol and chloroform.

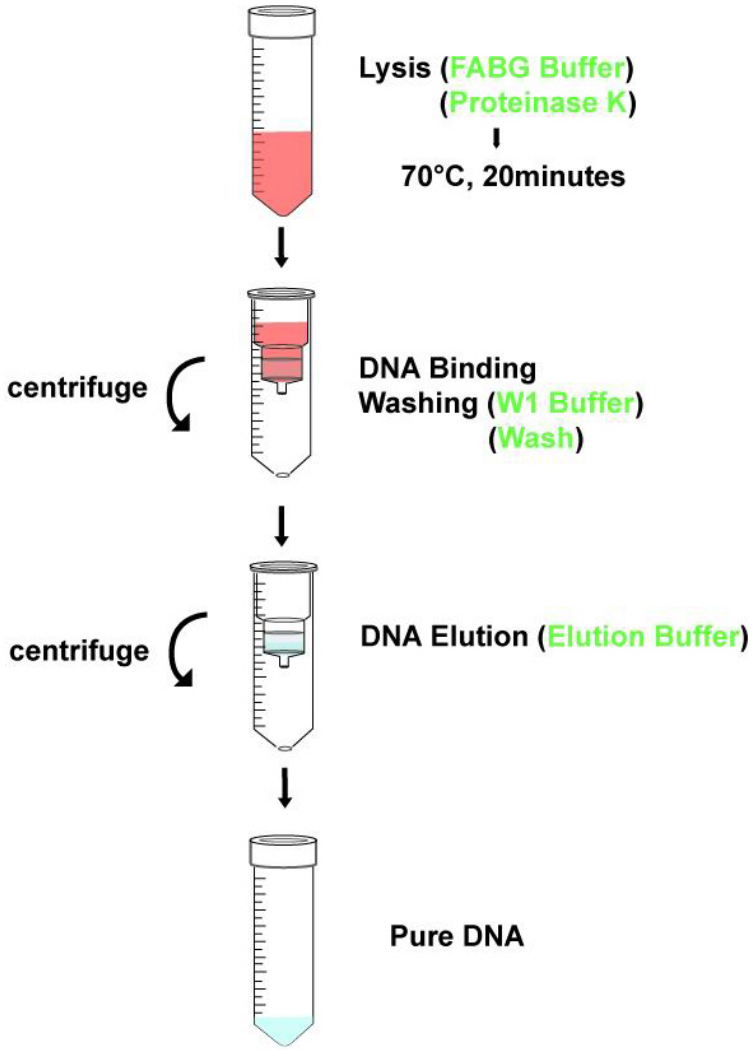
Applications:

PCR, AFLP, RFLP, Southern blotting, Real-time PCR

****Blood Genomic DNA Extraction (Midi)**
****Blood Genomic DNA Extraction (Maxi)**

Blood Genomic DNA Extraction (Midi/Maxi)
Brief Procedure

Blood Genomic DNA Extraction Maxi Kit



Whole Blood Genomic DNA Extraction
From Blood Genomic DNA Mini & Midi & Maxi Extraction Kit

	Blood Volume	Elution Volume	DNA Yields
Mini	0.2 ml	0.2 ml	Up to 50 μg
Midi	1 ml	1 ml	Up to 60 μg
Maxi	10 ml	10 ml	Up to 500 μg

Complete Product Lines-Genomic DNA Extraction Kit

7. Tissue Genomic DNA Extraction (Mini)

(Tissue/ Bacteria, G+ G-/ Fixed Tissue /Yeast/ Dried blood spot)

Specifications:

1. Sample:
25 mg animal tissues, Paraffin-embedded tissue and buccal swab.

2. Format: Spin columns

3. Operation: centrifuge/ vacuum

4. Expected Yield: about 60 μg of total DNA, depends on the samples types.

5. Operation time: about 1-2 hrs, depending upon the sample type.

Features:

High Recovery:
Possible to purify up to 60ug of genomic DNA.

Easy to use:
Rapid isolation without the use of caustic organic compounds.

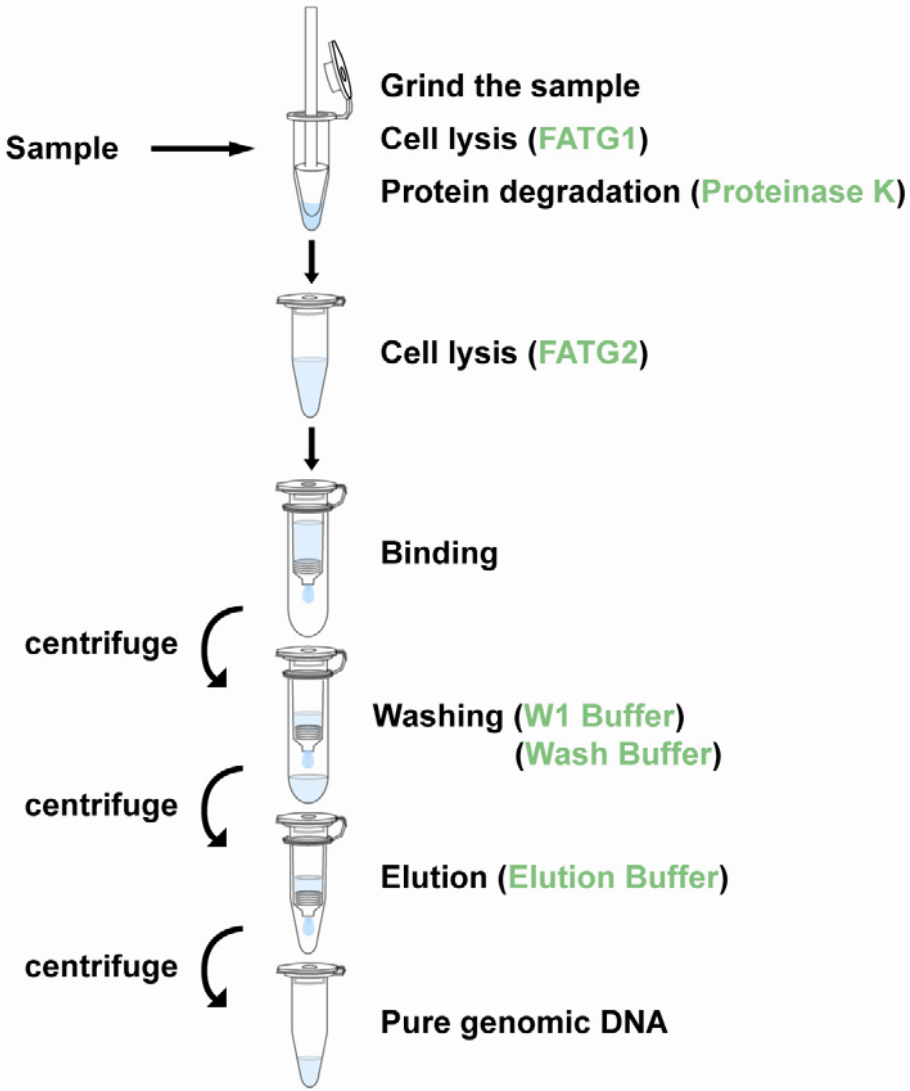
3. Time saving:
Rapid isolation of genomic DNA from tissue sample, within 1-2 hrs(depending on the sample type).

4. Versatile:
Extraction of genomic DNA from whole blood, plasma, serum, buffy coat, body fluids, lymphocytes, cultured cells and bacterial cells.

Applications:

PCR AFLP RFLP Southern blotting
Real-time PCR

Tissue Genomic DNA



Complete Product Lines-Genomic DNA Extraction Kit

8. Plant Genomic DNA Extraction (Mini)

(Plant tissue/ Fungi)

Specifications:

1. **Sample:**
   Mini: Up to100 mg fresh sample or 20 mg dry plant tissue
   Maxi: Up to1 g fresh sample or 200 mg dry plant tissue
   Format: Spin columns
2. **Operation:** centrifuge/ vacuum
3. **Binding capacity:**
   Mini: 50 μg genomic DNA
   Maxi: Up to 1 mg of genomic DNA
4. **Expected Yield:** 5-40 μg
   Mini: 5-40 μg genomic DNA
   Maxi: Up to 500-600 μg of genomic DNA
5. **Operation time:**
   Mini: about 30~60 minutes depending upon the sample type.
   Maxi: within 80 minutes depending upon the sample type.

Features:

High Purity:
DNA is suitable for a variety of applications, including amplificaiton, digestion, PCR etc.

Save:
The kit use a spin column tube and removes proteins and nucleases in cells. It is not necessary to treat the sample with harmful organic solvents such as phenol and chloroform.

3. Time saving:
Mini: About 30-60 minutes depending upon the sample type.

Maxi: Within 80 minutes depending upon the sample type.

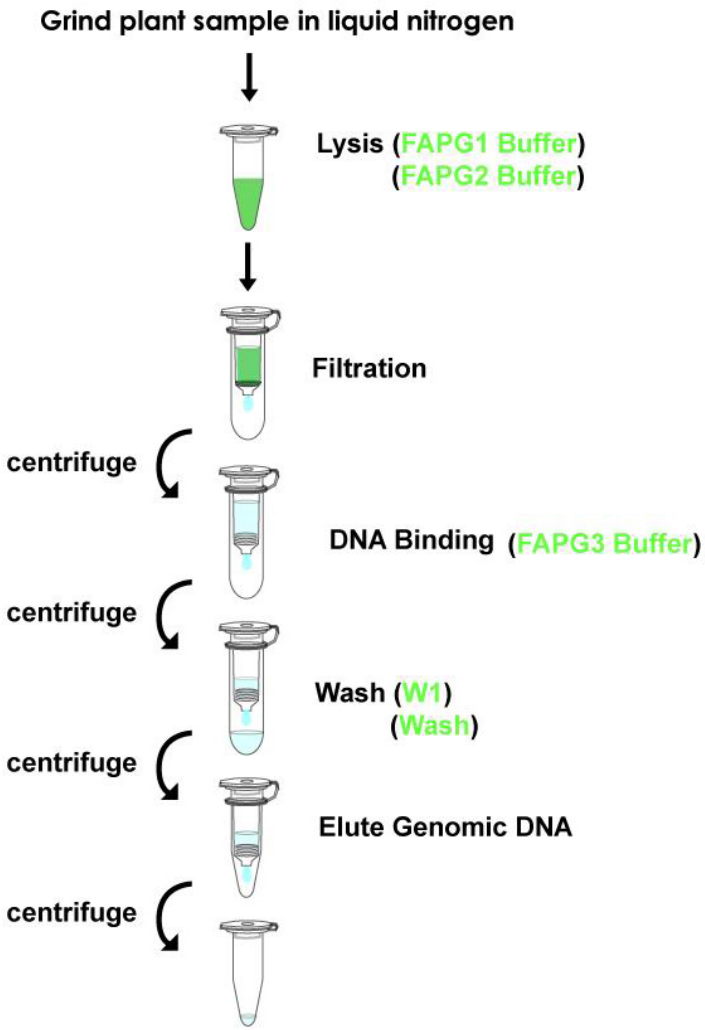
Applications:

PCR AFLP RFLP Southern blotting Real-time PCR

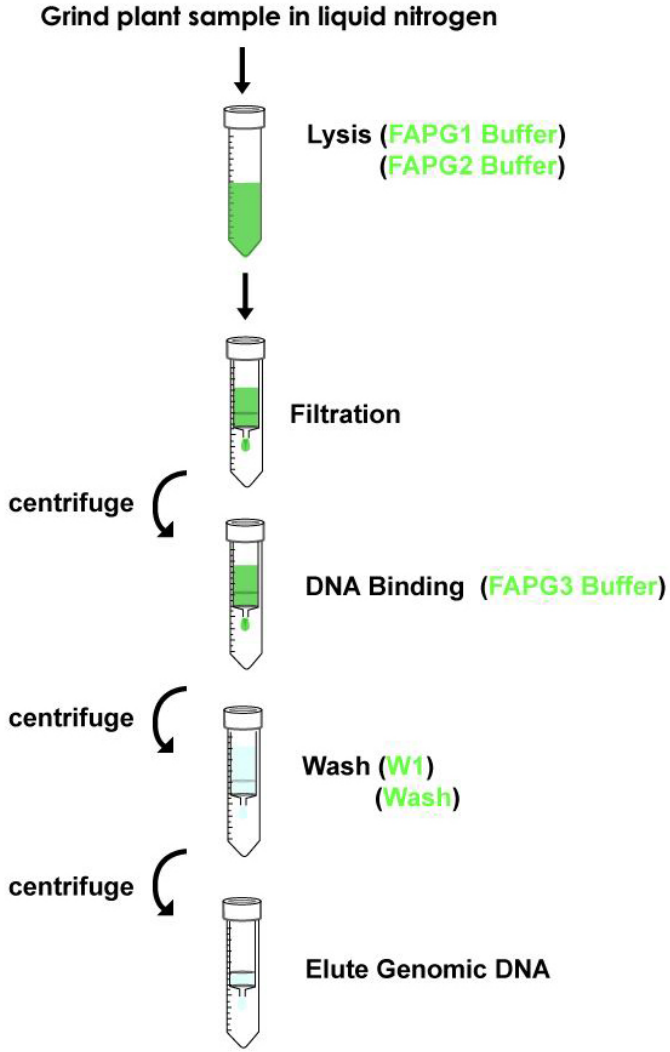
**Plant Genomic DNA Extraction (Maxi)

(Plant tissue/ Fungi)

Plant Genomic DNA Mini



Plant Genomic DNA Maxi



Plant Genomic DNA Extraction Kit Mini/Maxi

Sample Type	Mini	Maxi
Sample Size	100 mg of fresh plant tissue or 20 mg of dry plant tissue	1 g of fresh plant tissue or 200 mg of dry plant tissue
Elution Volume	200 μ l	2 ml
DNA Yield	Up to 5-40 μ g	Up to 50-60 ug

Complete Product Lines-Genomic DNA Extraction Kit

9. Soil DNA Isolation Mini Kit

Specifications:

1. **Sample:** Mini 0.2~1 g
   Midi up to 10 g
2. **Format:** Spin columns
3. **Operation:** centrifuge/ vacuum
4. **Binding capacity:** Mini 30 ug
   Midi 300 ug
5. **Operation time:** 60 minutes

Features

Time Saving: Rapid isolation of ready-to-use DNA within 60 minutes without phenol/chloroform extraction.

High purity: Eliminate humic acid, polysaccharides, phenol compounds, and enzyme inhibitor from stool sample.

Sample Size: Mini Kit Prep:0.2~1g of soil sample Midi Prep: up to 10g of soil sample

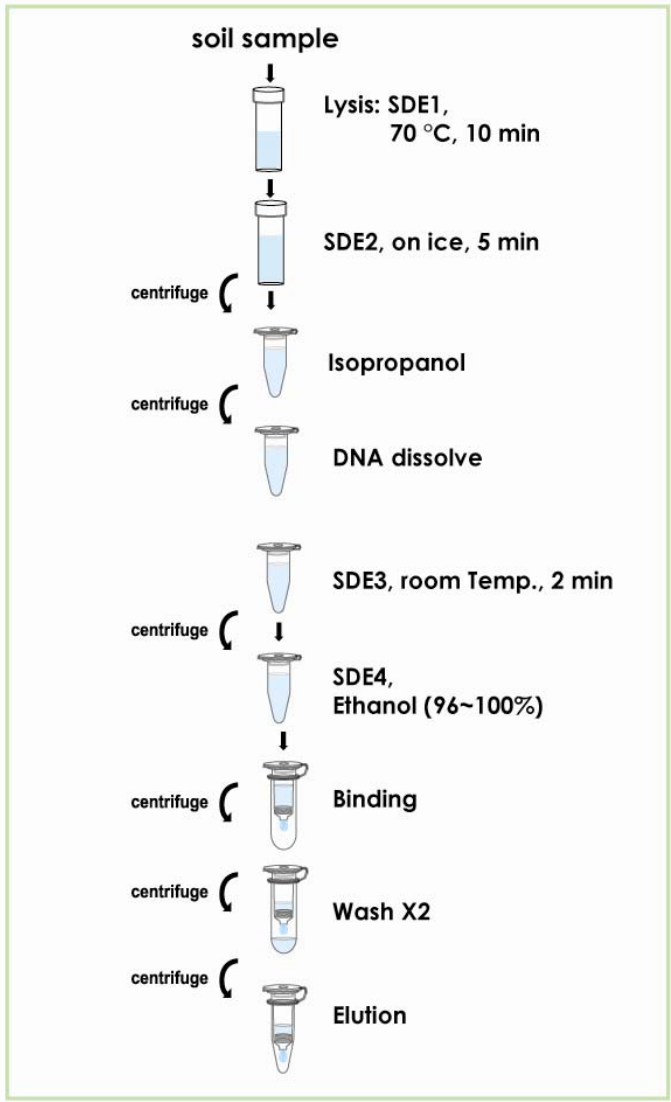
Format: Spin Column

Applications
PCR, Real-Time PCR,
Infectious disease reserch.

****Soil DNA Isolation Kit (Mini)**

**** Soil DNA Isolation Kit (Midi)**

Soil Genomic DNA Extraction Procedure



Complete Product Lines-Genomic DNA Extraction Kit

10. Stool DNA Isolation Mini Kit

Specifications:

1. Sample: 50~200 mg of fresh or frozen stool sample.

2. Format: Spin columns

3. Operation: centrifuge/ vacuum

4. Binding capacity: 30 ug

5. Operation time: within 60 minutes

Features

Time Saving: Rapid isolation of ready-to-use DNA within 60 minutes without phenol/chloroform extraction.

High purity: Eliminate humic acid, polysaccharides, phenol compounds, and enzyme inhibitor from stool sample.

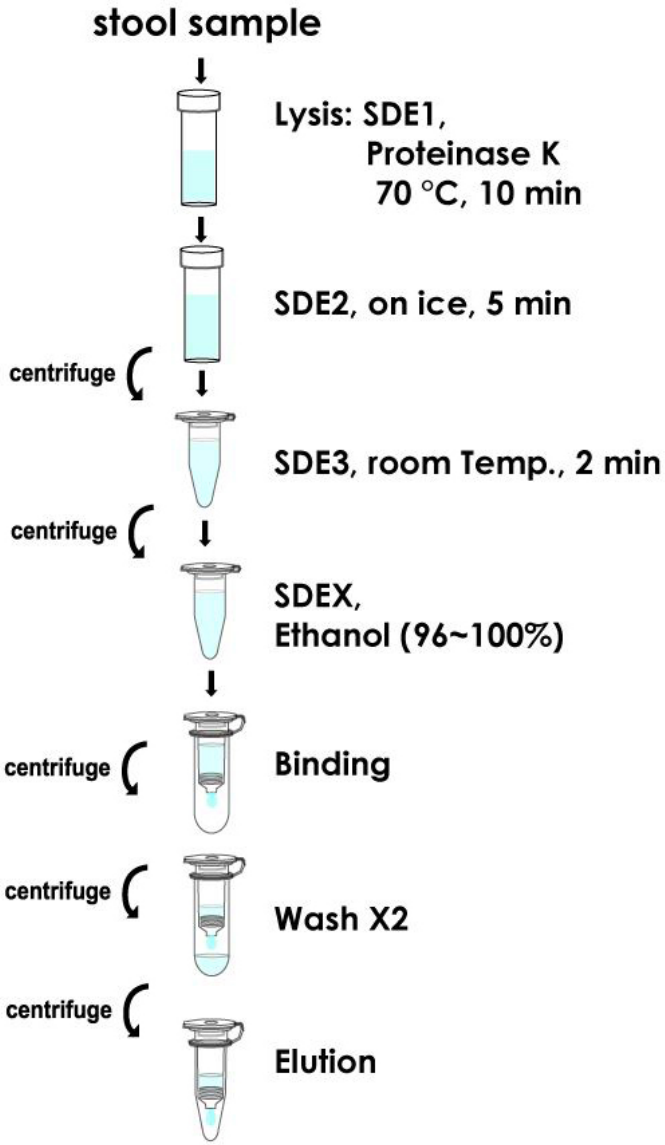
Sample Size: 50~200 mg of fresh or frozen stool sample.

Format: Spin Column

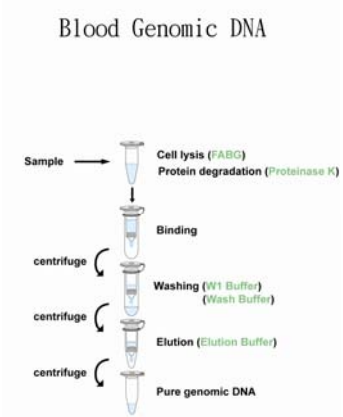
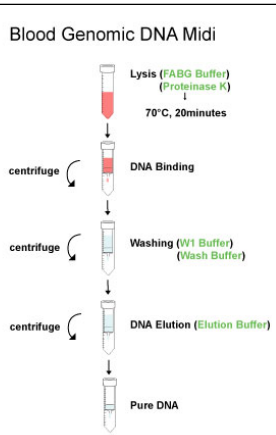
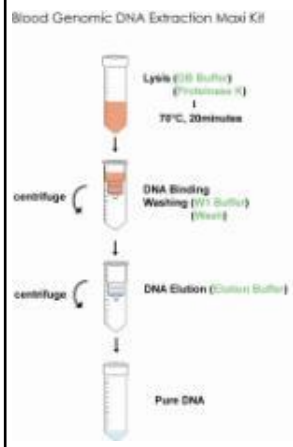
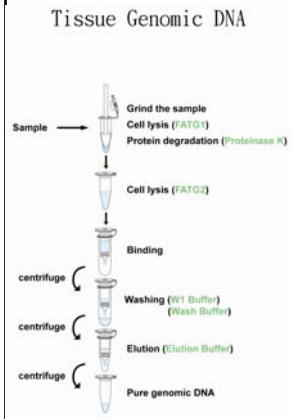
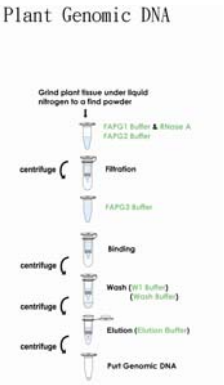
Applications
PCR, Real-Time PCR
Disease research

****Stool DNA Isolation Kit (Mini)**

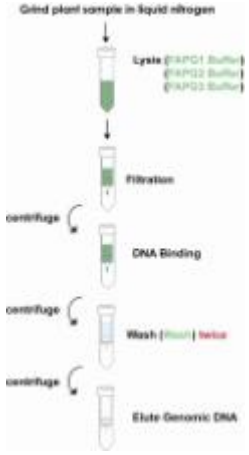
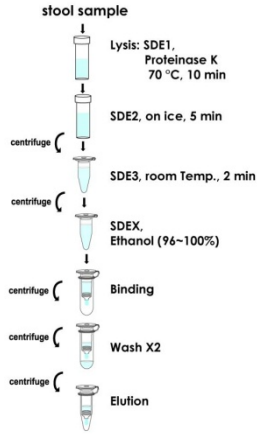
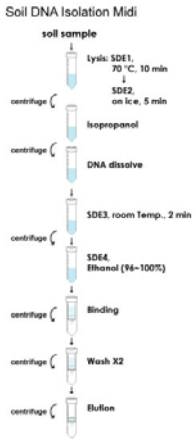
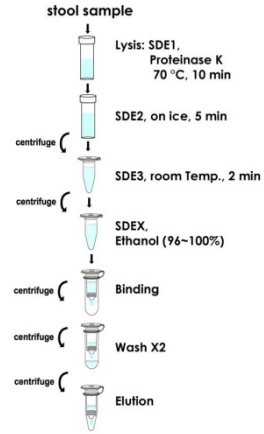
Stool Genomic DNA Extraction Procedure



Complete Product Lines- Column System-Genomic DNA Purification

	Blood DNA-Mini	Blood DNA-Midi	Blood DNA-Maxi	Tissue DNA-Mini	Plant DNA-Mini
Procedure					
Usage:	Blood/cultured cell genomic DNA mini preparations	Blood/cultured cell genomic DNA maxi preparations	Blood/cultured cell genomic DNA maxi preparations	Tissue/cultured cell genomic DNA mini preparations	Plant genomic DNA mini preparations
Sample:	Up to 0.2 ml fresh blood $5X10^6$ animal cultured cells 10^8 bacterial cultured cells	0.3-2 ml fresh blood $2 X 10^7$ animal cultured cells	Up to10 ml fresh blood $5 X 10^7$-$1 X 10^8$ animal cultured cell $2 X 10^{10}$ bacterial cultured cells	25 mg animal tissues, Paraffin-embedded tissue, Buccal swab	Up 100 mg of fresh plant tissue or 20mg of dry plant tissue
Format:	Spin columns	Spin columns	Spin columns	Spin columns	Spin columns
Operation:	centrifuge/ vacuum	centrifuge/ vacuum	centrifuge/ vacuum	centrifuge/ vacuum	centrifuge/ vacuum
Binding capacity:	up to 50 μg genomic DNA	up to 150 μg of genomic DNA	up to 500 μg of genomic DNA	up to 60 μg genomic DNA	50ug of Genomic DNA
Expectant Yield	4-12 μg for blood sample 20-40 μg for cultured cells	Up to 60 μg from whole blood	Up to 500 μg DNA from whole blood	5-50 μg	5-40 μg
operation Time	Within30 minutes	Within 60 minutes	Within 60 minutes	Within 20 minutes after lysis	Within 60 minutes
Applications:	PCR, AFLP, RFLP, Southern blotting, Real-time PCR	PCR, AFLP, RFLP, Southern blotting, Real-time PCR	PCR, AFLP, RFLP, Southern blotting, Real-time PCR	PCR, AFLP, RFLP, Southern blotting, Real-time PCR	PCR/ Real-time PCR, Southern blotting, PADP/ AFLP

Complete Product Lines- Column System-Genomic DNA Purification

	Plant DNA-Maxi	Soil DNA-Mini	Soil DNA-Midi	Stool DNA-Mini
Procedure				
Sample:	Plant genomic DNA maxi preparations	0.2~1 g of soil sample.	Up to 10 g of soil sample.	50~200 mg of fresh or frozen stool sample.
Format:	Up 1g of fresh plant tissue or 200mg of dry plant tissue	Spin columns	Spin columns	Spin columns
Operation:	Spin columns	centrifuge/ vacuum	centrifuge/ vacuum	centrifuge/ vacuum
Binding capacity:	centrifuge/vacuum	up to 30 μg genomic DNA	up to 300 μg genomic DNA	Up to 30 μg of Genomic DNA
operation Time	Up to 1 mg of Genomic DNA	Within60 minutes	Within 60 minutes	Within 60 minutes
Applications:	Up to 500-600 μg	PCR, Real-time PCR Infectious disease reserch.	PCR, Real-time PCR Infectious disease reserch.	PCR, Real-time PCR disease reserch.

Complete Product Lines- Total RNA Extraction Kit

1. Total RNA Extraction Kit (Mini)

(Animal tissue/Cultured cells/ Bacteria/ Yeast)

Specifications:

1. Sample:
Up to 25 mg fresh animal tissue

2. Format: Spin columns

3. Operation: centrifuge/ vacuum

4. Binding capacity: up to 100 μg total RNA

5. Expected Yield: up to 40 μg

6. Operation time: Within 20 minutes

Features:

High Purity:
OD 260/280: >1.9

Save Use:
The kit use a spin column tube and removes proteins and nucleases in cells. It is not necessary to treat the sample with harmful organic solvents such as phenol and chloroform.

3. Time saving:
Purification of high quality RNA from 25mg of animal tissues about 20 minutes depending upon the sample type.

Applications:

RT-PCR, Real-time RT-PCR, Northern blotting, mRNA selection, microarray in vitro translation, cDNA Synthesis

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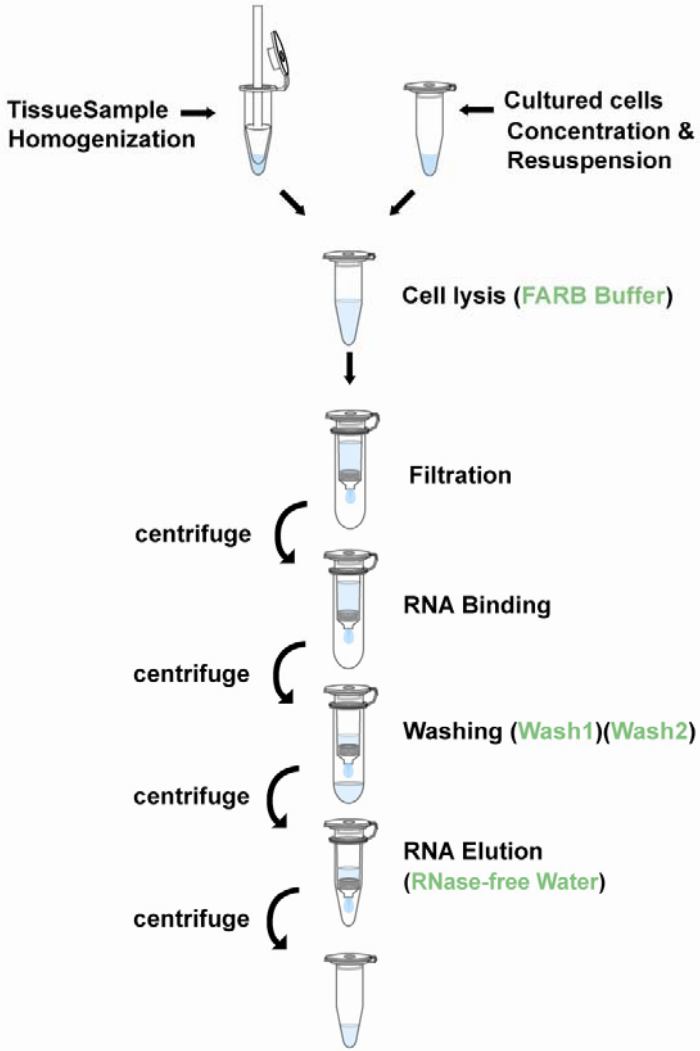
**Total RNA Extraction Kit (Midi)

(Animal tissue/ Cultured cells/ Bacteria/ Yeast)

**Total RNA Extraction Kit (Maxi)

(Animal tissue/ Cultured cells/ Bacteria/ Yeast)

Tissue Total RNA



Complete Product Lines- Total RNA Extraction Kit

1. Total RNA Extraction Kit (Midi and Maxi)

(Animal tissue/Cultured cells/ Bacteria/ Yeast)

Specifications:

1. Sample:
Midi: 100-300mg animal tissue
1 x 10^8 animal cultured cells
1 x 10^{10} bacterial cultured cells
5 x 10^8 Yeast cells
Maxi: 5-1g fresh whole blood
5 x 10^8 animal cultured cells
5 x 10^{10} bacterial cultured cells
5 x 10^9 Yeast cells

2. Format: Spin columns

3. Operation: centrifuge/ vacuum

4. Binding capacity:
Midi: up to 1mg RNA
Maxi: up to 6mg RNA

5. Expected Yield:
Midi: up to 500 μg RNA
Maxi: up to 15mg RNA

6. Operation time: Within 60 minutes

Features:

High Purity:
OD 260/280: >1.9

Save Use:
The kit use a spin column tube and removes proteins and nucleases in cells. It is not necessary to treat the sample with harmful organic solvents such as phenol and chloroform.

3. Time saving:
Purification of high quality RNA from 25mg of animal tissues about 20 minutes depending upon the sample type.

Applications:

RT-PCR, Real-time RT-PCR, Northern blotting, mRNA selection, microarray in vitro translation, cDNA Synthesis

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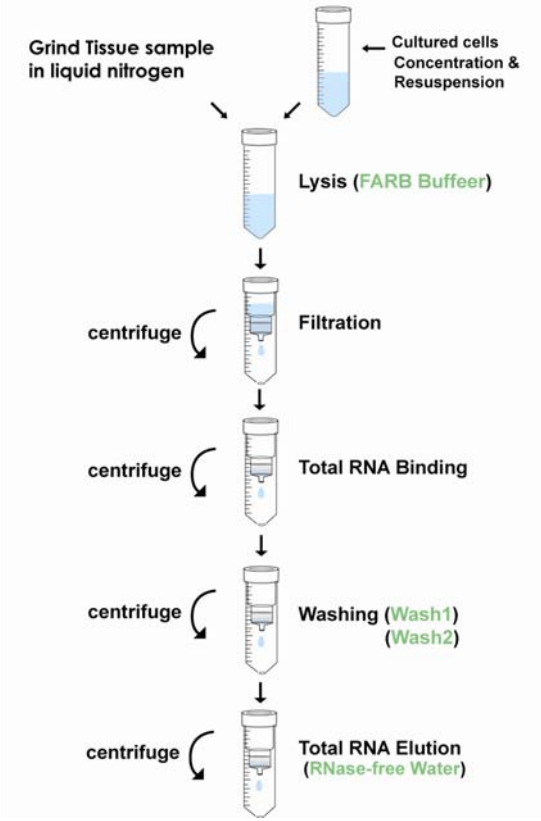
**Total RNA Extraction Kit (Midi)

(Animal tissue/ Cultured cells/ Bacteria/ Yeast)

**Total RNA Extraction Kit (Maxi)

(Animal tissue/ Cultured cells/ Bacteria/ Yeast)

Tissue Total RNA Maxi



Blood Total RNA Extraction Kit (Mini)

(Blood/ Cultured cells)

Specifications:

1. Sample:
0.3-1 ml fresh blood
1 x 10^7 bacterial cultured cells
1 x 10^9 Yeast cells

2. Format: Spin columns

3. Operation: centrifuge/ vacuum

4. Binding capacity: up to 100 μg total RNA

5. Expected Yield:
10-35 μg for cultured cells
4-12 μg for blood sample

6. Operation time: Within 30 minutes

Features:

High Purity:
OD 260/280: >1.9

Save Use:
The kit use a spin column tube and removes proteins and nucleases in cells. It is not necessary to treat the sample with harmful organic solvents such as phenol and chloroform.

3. Time saving:
Purification of high quality RNA from 25mg of animal tissues about 20-30 minutes depending upon the sample type.

Applications:

RT-PCR, Real-time RT-PCR, Northern blotting, mRNA selection, microarray, cDNA Synthesis, in vitro Translation,

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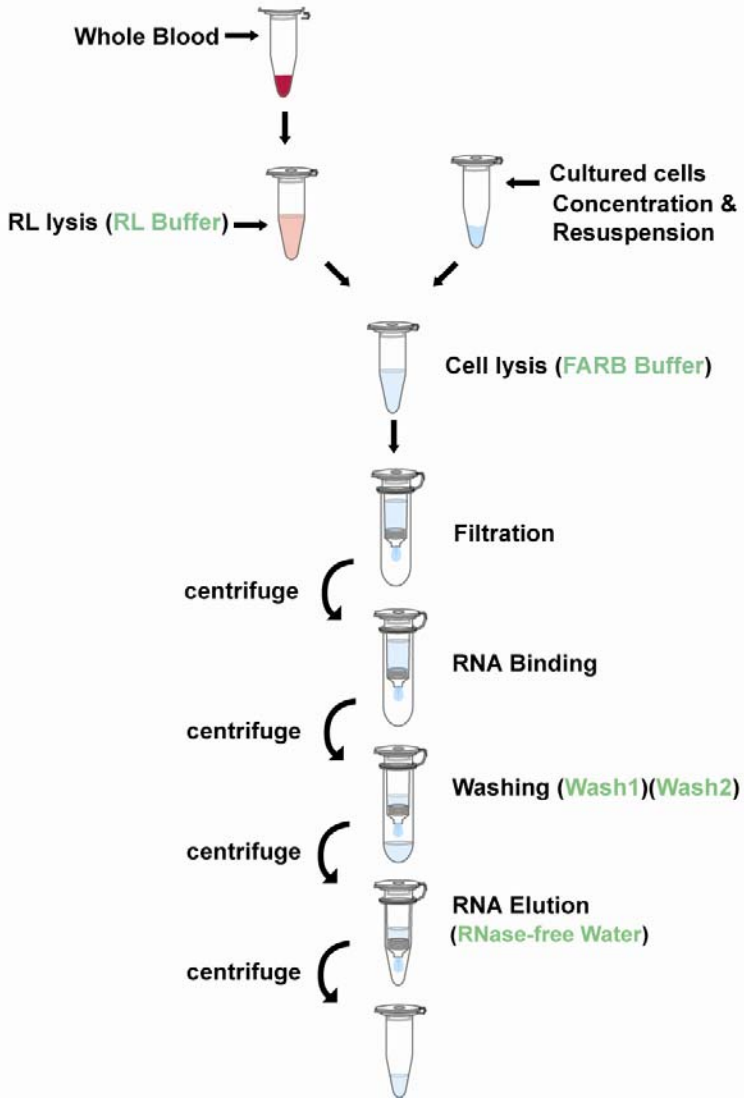
**Total RNA Extraction Kit (Midi)

(Animal tissue/ Cultured cells/ Bacteria/ Yeast)

**Total RNA Extraction Kit (Maxi)

(Animal tissue/ Cultured cells/ Bacteria/ Yeast)

Blood Total RNA



Blood Total RNA Extraction Kit (Midi & Maxi)

(Blood/ Cultured cells)

Specifications:

1. Sample:

Midi: 3-1 ml fresh whole blood
1 x 10^8 animal cultured cells
1 x 10^9 bacterial cultured cells
5 x 10^8 Yeast cells

Maxi: 3-10 ml fresh whole blood
5 x 10^8 animal cultured cells
5 x 10^{10} bacterial cultured cells
5 x 10^9 Yeast cells

2. Format: Spin columns

3. Operation: centrifuge/ vacuum

4. : Binding capacity :

Midi: 1mg RNA
Maxi: 6mg RNA

5. Operation time: Within 30-60 minutes

Features:

High Purity:
OD 260/280: >1.9

Save Use:
The kit use a spin column tube and removes proteins and nucleases in cells. It is not necessary to treat the sample with harmful organic solvents such as phenol and chloroform.

3. Time saving:
Purification of high quality RNA from 6mg of animal tissues about 30-60 minutes depending upon the sample type.

Applications:

RT-PCR, Real-time RT-PCR, Northern blotting, mRNA selection, microarray

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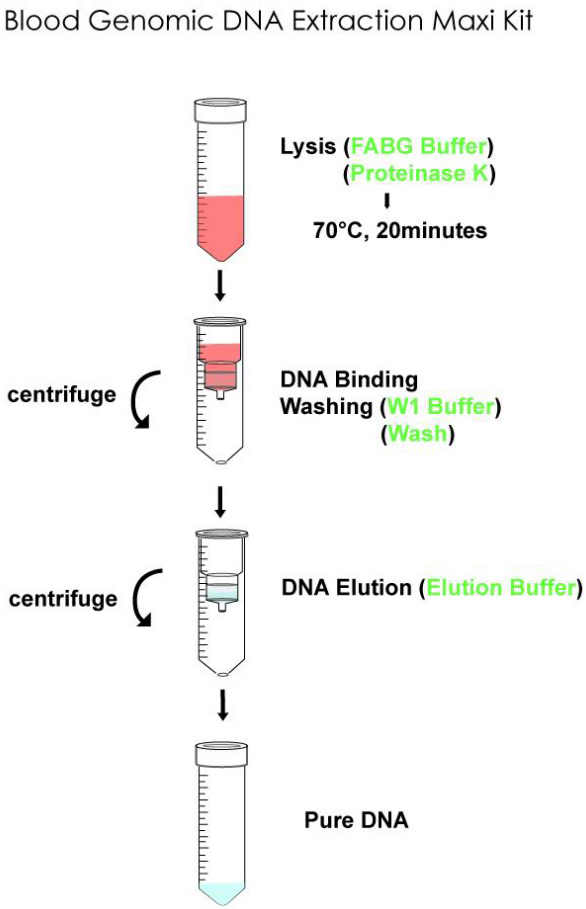
**Total RNA Extraction Kit (Midi)

(Animal tissue/ Cultured cells/ Bacteria/ Yeast)

**Total RNA Extraction Kit (Maxi)

(Animal tissue/ Cultured cells/ Bacteria/ Yeast)

Blood Total RNA Maxi and Midi Procedure



Plant Total RNA Extraction Kit (Mini)

(Plant tissue/ Fungi)

Specifications:

1. Sample:
100 mg fresh plant tissue

2. Format: Spin columns

3. Operation: centrifuge/ vacuum

4. Binding capacity: up to 100 μg total RNA

5. Expected Yield: 5-30 μg for young leaf

6. Operation time: Within 60 minutes

Features:

High Purity:
OD 260/280: >1.9

Save Use:
The kit use a spin column tube and removes proteins and nucleases in cells. It is not necessary to treat the sample with harmful organic solvents such as phenol and chloroform.

3. Time saving:
Purification of high quality RNA from 100mg of animal tissues about 20 minutes depending upon the sample type.

Applications:

RT-PCR Real-time RT-PCR Northern blotting mRNA selection microarray

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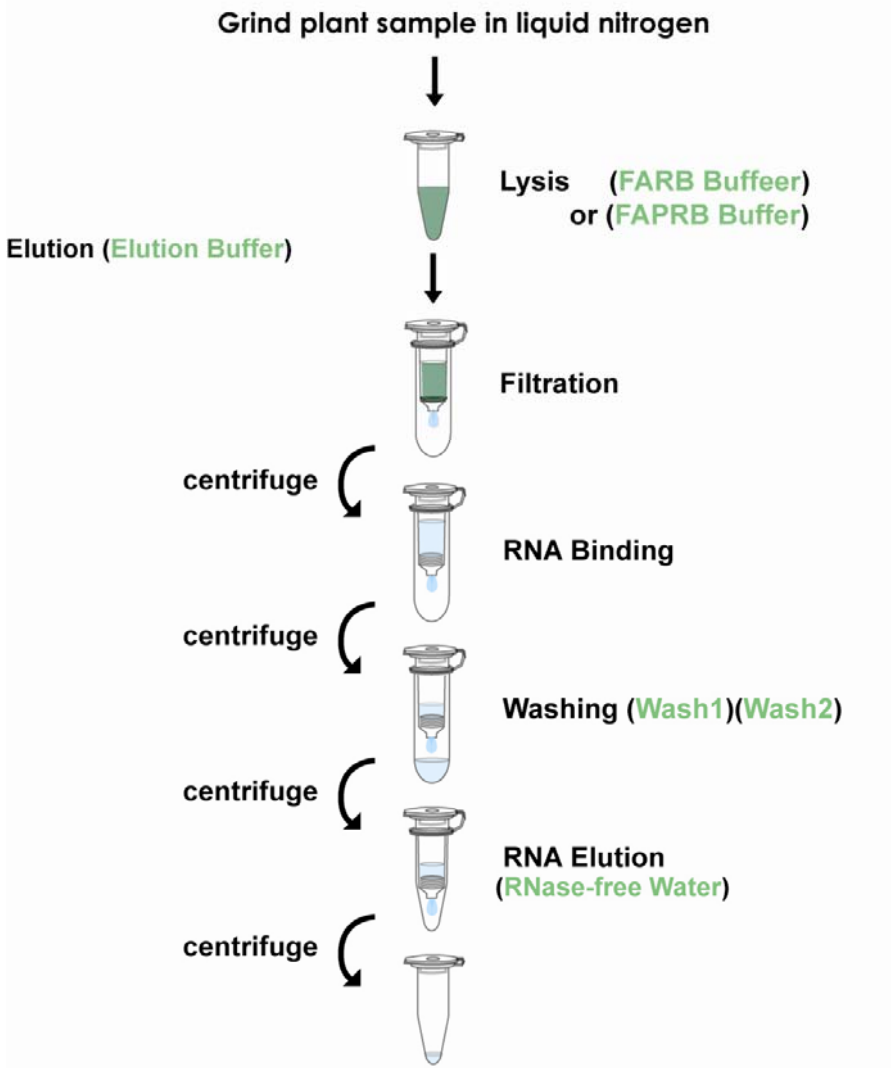
**Plant Total RNA Extraction Kit (Midi)

(Plant tissue/ Fungi)

**Plant Total RNA Extraction Kit (Maxi)

(Plant tissue/ Fungi)

Plant Total RNA



Total RNA Yields of Plant Total RNA Extraction Kit

	Sample Size	Elution Volume	Yields
Mini	100 mg	50 μl	Up to 5-30 μg
Maxi	500 mg	250 μl	Up to 2.5 mg

Plant Total RNA Extraction Kit (Mini)

(Plant tissue/ Fungi)

Specifications:

1. Sample:
100 mg fresh plant tissue

2. Format: Spin columns

3. Operation: centrifuge/ vacuum

4. Binding capacity: up to 100 μg total RNA

5. Expected Yield: 5-30 μg for young leaf

6. Operation time: Within 60 minutes

Features:

High Purity:
OD 260/280: >1.9

Save Use:
The kit use a spin column tube and removes proteins and nucleases in cells. It is not necessary to treat the sample with harmful organic solvents such as phenol and chloroform.

3. Time saving:
Purification of high quality RNA from 100mg of animal tissues about 20 minutes depending upon the sample type.

Applications:

RT-PCR Real-time RT-PCR Northern blotting mRNA selection microarray *in vitro* translation cDNA Synthesis

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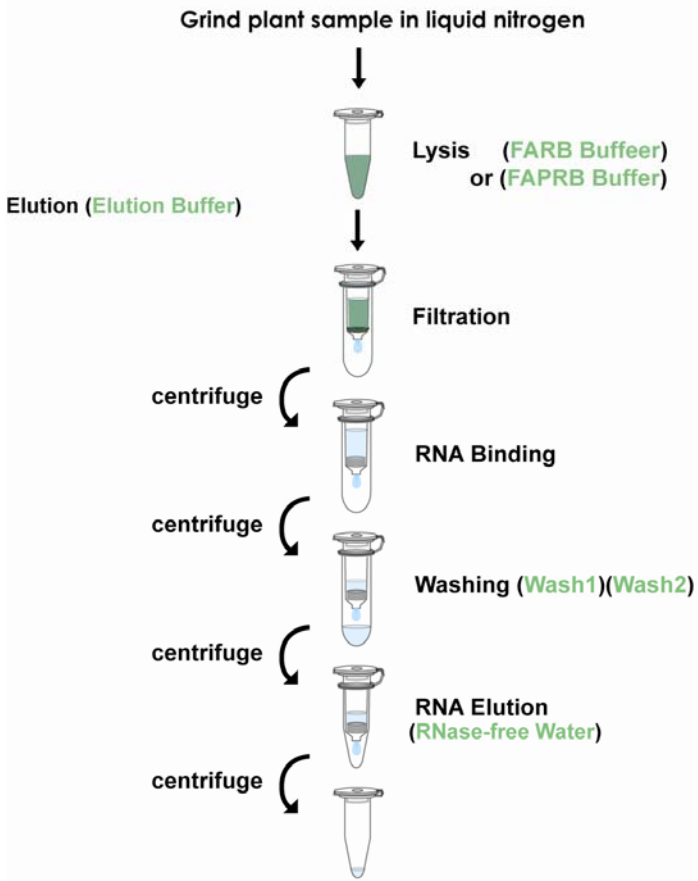
**Plant Total RNA Extraction Kit (Midi)

(Plant tissue/ Fungi)

**Plant Total RNA Extraction Kit (Maxi)

(Plant tissue/ Fungi)

Plant Total RNA



Plant Total RNA Extraction Kit (Maxi)

(Plant tissue/ Fungi)

Specifications:

1. Sample:
1g fresh plant tissue

2. Format: Spin columns

3. Operation: centrifuge/ vacuum

4. Binding capacity: up to 6mg total RNA

5. Expected Yield: 50-300 μg for young leaf

6. Operation time: 30-60 minutes

Features:

High Purity:
OD 260/280: >1.9

Save Use:
The kit use a spin column tube and removes proteins and nucleases in cells. It is not necessary to treat the sample with harmful organic solvents such as phenol and chloroform.

3. Time saving:
Purification of high quality RNA from 100mg of animal tissues about 20 minutes depending upon the sample type.

Applications:

RT-PCR Real-time RT-PCR Northern blotting mRNA selection microarray *in vitro* translation cDNA Synthesis

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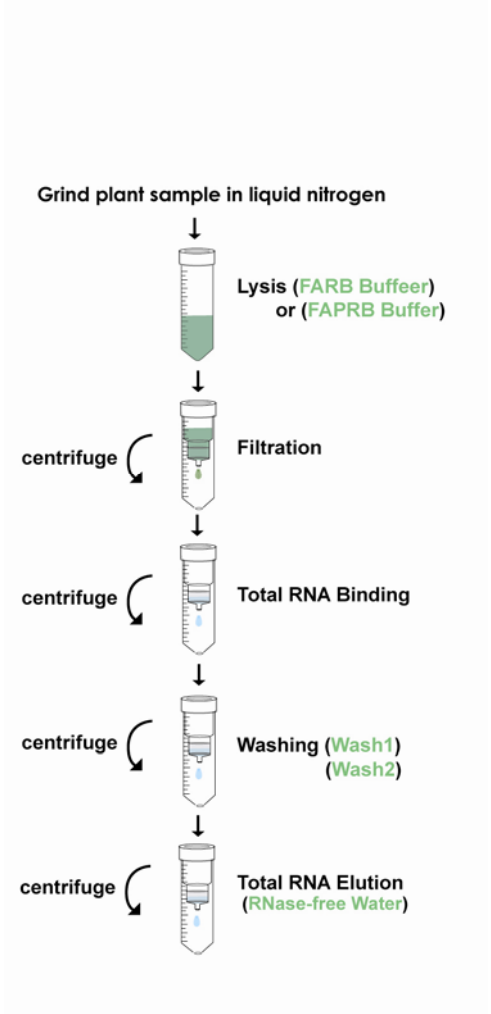
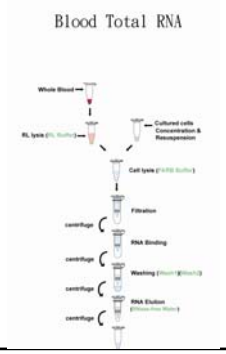
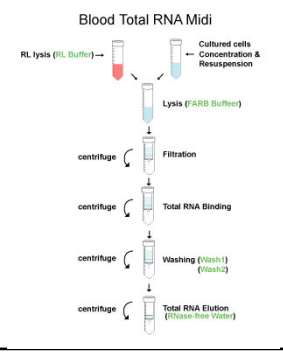
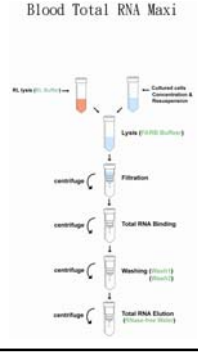
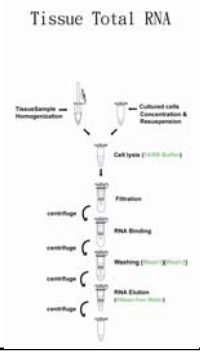
****Plant Total RNA Extraction Kit (Midi)**
(Plant tissue/ Fungi)

****Plant Total RNA Extraction Kit (Maxi)**
(Plant tissue/ Fungi)

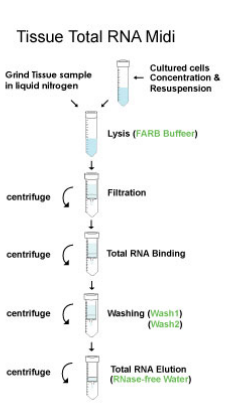
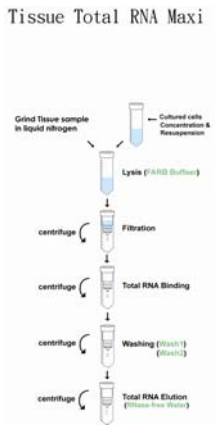
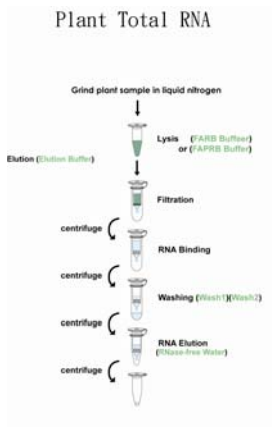
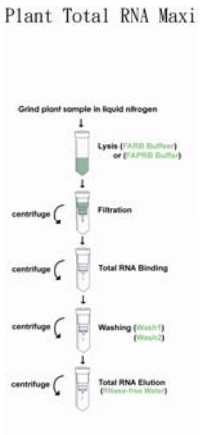
Plant Total RNA Maxi



Complete Product Lines- Column System-Total RNA Purification

	Blood RNA-Mini	Blood RNA-Midi	Blood RNA-Maxi	Tissue RNA-Mini
Procedure				
Usage:	Purification of total RNA from cultured cells and fresh whole blood	Purification of total RNA from cultured cells and fresh whole blood	Purification of total RNA from cultured cells and fresh whole blood	Purification of total RNA from tissue
Sample:	Up to 1 ml fresh blood 10^7 animal cultured cells 10^9 bacterial cultured cells 5 x 10^7 Yeast	3-1 ml fresh blood 1 x10^8 animal cultured cells 1 x 10^{10} bacterial cultured cells 5 x 10^8 Yeast Cells	3-10 ml fresh blood 5 x10^8 animal cultured cells 5 x 10^{10} bacterial cultured cells 5 x 10^9 Yeast Cells	Up to 25 mg fresh animal tissue Up to 1x10^7 animal cultured cell Up to 1x10^9 bacteria cultured cells, Up to 5 x 10^7 Yest cells
Format:	spin column	spin column	spin column	spin column
Operation:	centrifuge/ vacuum	centrifuge/vacuum	centrifuge/vacuum	centrifuge/ vacuum
Binding capacity:	up to 100 μg total RNA	1mg	6mg	up to 100 μg total RNA
Expected Yield	4-12 μg for blood sample 10-65 μg for cultured cells			Up to 40 μg
Operation Time	30-60 minutes	Within 60 minutes	Within 60 minutes	Within 40 minutes
Applications:	RT-PCR, cDNA Synthesis Real-time RT-PCR Northern blotting mRNA selection microarray *in vitro* translation	RT-PCR, cDNA Synthesis Real-time RT-PCR Northern blotting mRNA selection Microarray *in vitro* translation	RT-PCR, cDNA synthesis Real-time RT-PCR Northern blotting mRNA selection Microarra y*in vitro* translation	RT-PCR, cDNA synthesis Real-time RT-PCR Northern blotting mRNA selection microarray , *in vitro* translation

Complete Product Lines- Column System-Total RNA Purification

	Tissue RNA-Midi	Tissue RNA-Maxi	Plant RNA-Mini	Plant RNA-Maxi
Procedure				
Usage:	Purification of total RNA from tissue	Purification of total RNA from tissue	Purification of total RNA from plant tissues and cells	Purification of total RNA from plant tissues and cells
Sample:	100-300 mg fresh blood 1 x 10^8- animal cultured cells 1x 10^{10} blood cultured cells 5 x 10^8 Yest cells	5-1g fresh blood 5 x 10^8- animal cultured cells 5x 10^{10} blood cultured cells 5 x 10^9 Yest cells	100 mg fresh plant tissue	1g plant tissue
Format:	spin column	spin column	spin column	spin column
Operation:	centrifuge/vacuum	centrifuge/vacuum	centrifuge/ vacuum	centrifuge/vacuum
Binding capacity:	1mg	2.5mg	up to 100 μ g total RNA	6mg
Expected Yield	Up to 500 μg	Up to 1.5 mg	Up to 5-30 μg for young leaf	Up to 50-300 μg for young leave
Operation Time	Within 60 minutes	Within 60 minutes	Within 60 min.	Within 60 min.
Applications:	RT-PCR, Synthesis Real-time RT-PCR Northern blotting mRNA selection Microarray, in vitro translation	RT-PCR, Synthesis Real-time RT-PCR Northern blotting mRNA selection Microarray, in vitro translation	RT-PCR Real-time RT-PCR Northern blotting mRNA selection microarray	RT-PCR, Synthesis Real-time RT-PCR Northern blotting mRNA selection Microarray, in vitro translation

Complete Product Lines- Total RNA Extraction Kit

Viral Nucleic Acid Extraction Kit

Specifications:

1. Usage:
viral RNA/DNA purification from serum, plasma, urine, cell-free body fluids and cell-culture medium.

2. Sample Size: 200 ul

3. Format: Spin columns

4. Operation: centrifuge/ vacuum

5. Expectant Yield: 90% recovery

6. operation time: 30-40 minutes

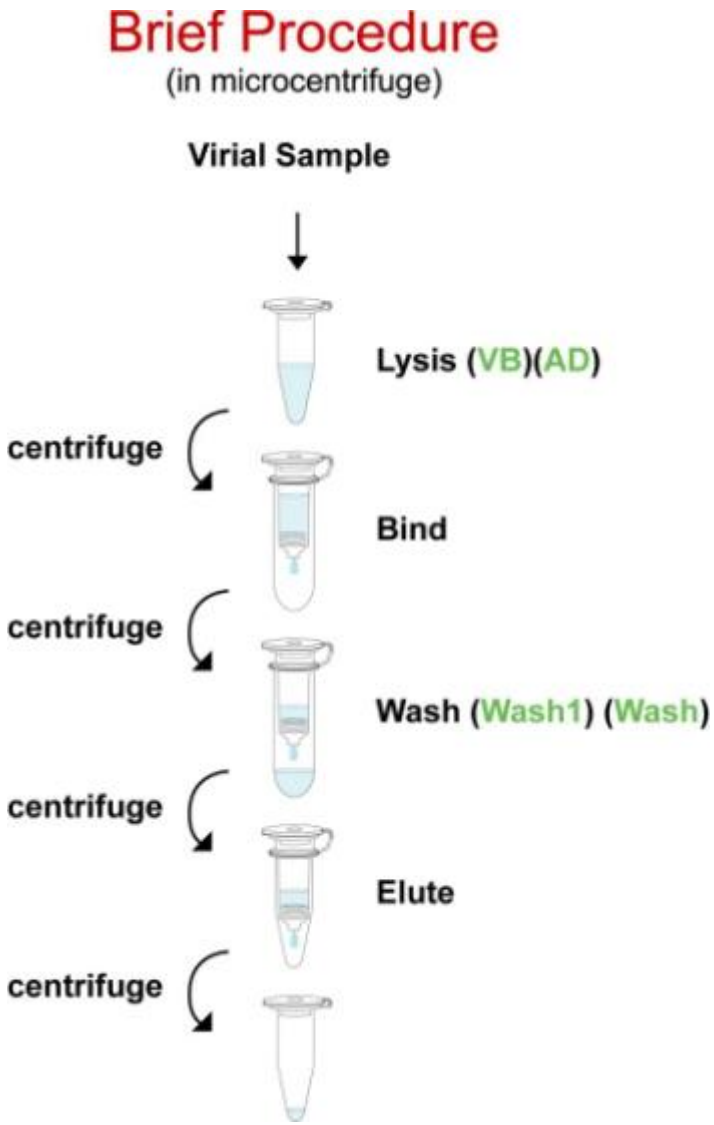
Features:

High Purity:
Complete removal of contaminants and inhibitors for reliable downstream applications
Save Use:
The kit use a spin column tube and removes proteins and nucleases in cells. It is not necessary to treat the sample with harmful organic solvents such as phenol and chloroform.
3. Time saving:
less than 30 minutes.
4. Versatile:
The kit can be extracted from 20 of plasma, serum, urine, cell-culture, supernatant, or cell-free body fluids.

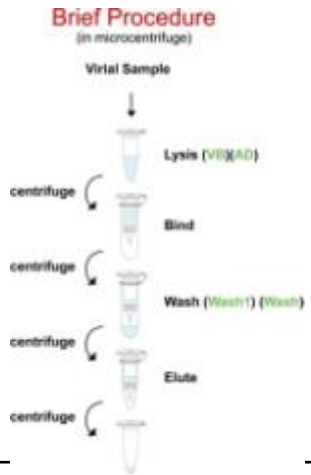
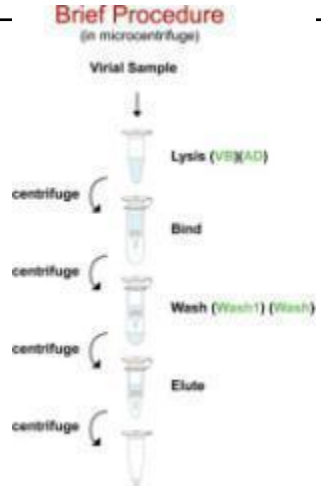
Applications:

PCR AFLP RFLP Southern blotting
Real-time PCR

Viral Acid Extraction Kit (Mini)



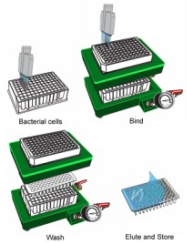
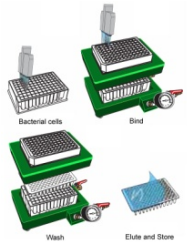
Complete Product Lines- Column System-Post-Viral DNA/RNA

	Viral DAN/RNA I	Viral DNA/RNA II
Procedure		
Usage:	Purification of viral RNA or DNA fro cell-free samples, especially for very few target molecules in the sample. It is designed for low viral load specimen by using Carrier RNA.	Purification of viral RNA or DNA fro cell-free samples, especially for very few target molecules in the sample. It is designed for avoiding carrier RNA cross contamination without using Carrier RNA.
Sample:	200 μl of serum, plasma, bodily fluids, and the supernatant of viral infected cell culture	200 μl of serum, plasma, bodily fluids, and the supernatant of viral infected cell culture
Format:	Spin columns	Spin columns
Operation:	centrifuge/ vacuum	centrifuge/ vacuum
Binding capacity:		
Expected recovery:	>90% recovery	>90% recovery
Elution Volume	50ul	50ul
Operation Time	30 minutes	Within 30 minutes
Applications:	RT-PCR, PCR, Real-Time RT-PCR, and Real-Time PCR	RT-PCR, PCR, Real-Time RT-PCR, and Real-Time PCR

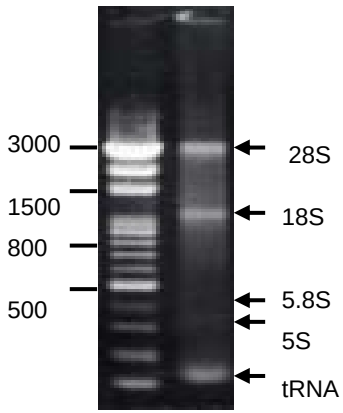
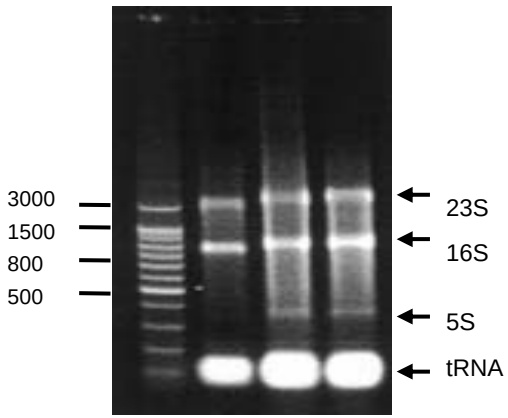
Complete Product Lines-Magnetic Bead System

Product Name	Favor MagBead Plasmid DNA Kit	Favor MagBead Blood DNA Kit	Favor MagBead Total RNA Kit	Favor MagBead Viral DNA/RNA Kit
Description	The Favor MagBead Plasmid DNA Kit is designed for the purification of plasmid DNA from 1 ml of bacterial culture. The method is based on the concentration of cells from 1 ml of bacterial culture, alkaline lysis of the cells, capture of nucleic acid on the surface of the magnetic silica particles, removal of genomic DNA, RNA, and other non-specifically bound substances by washing and, finally, release of plasmid DNA into the release buffer. Purified plasmid DNA with a good A260/A280 ratio can be used directly in restriction digestion, cloning, PCR and qPCR assays. This kit is adaptable to various magnetic separators and to most automated nucleic-acid purification systems.	The Favor MagBead Genomic DNA Kit is designed for the isolation of genomic DNA from bacterial culture, cell culture, blood, and tissue. The method is based on the concentration of cells from 1 ml of bacterial culture (or an equivalent amount of cell culture, blood, or tissue), lysis of the cells, capture of nucleic acid on the surface of the magnetic silica particles, removal of RNA and other non-specifically bound substances by washing and, finally, release of genomic DNA into the release buffer. Purified genomic DNA with a good A260/A280 ratio can be used directly in restriction digestion, cloning, PCR and qPCR assays. This kit is adaptable to various magnetic separators and to most automated nucleic-acid purification systems.	The Favor MagBead Total RNA Kit is designed for the purification of total RNA from 1 ml of bacterial culture or 3 ml of whole blood. The method is based on the concentration of cells from 1 ml of bacterial culture or 3 ml of whole blood, lysis of cells, capture of nucleic acid on the surface of the magnetic silica particles, removal of non-specifically bound material by washing and, finally, release of RNA into the release buffer. The purified total RNA can be used directly in RT-PCR and qRT-PCR assays. This kit is adaptable to various magnetic separators and to most automated nucleic-acid purification systems.	The Favor MagBead Viral DNA/RNA Kit is designed for the simultaneous purification of viral DNA and RNA from 1 ml of serum. The method is based on the concentration of viral particles from 1 ml of serum, lysis of the viral particles, captures of viral DNA/RNA on the surface of the magnetic silica particles and, finally, release of DNA/RNA into the release buffer. The purified viral DNA/RNA can be used directly in RT-PCR and qRT-PCR assays. The protocol can be used to purify 109–1010 copies of viral DNA/RNA from 1 ml of serum within 50 minutes. This kit is adaptable to various magnetic separators and to most automated nucleic-acid purification systems.
Features	1. Purification of Plasmid DNA from bacterial culture 2. Magnetic bead technology 3. Time-and-labor saving	1. Purification of genomic DNA from bacterial culture, cell culture, blood, or tissue 2. Magnetic bead technology 3. Time-and-labor saving	1. Purification of Total RNA from bacterial culture, or blood. 2. Magnetic bead technology 3. Time-and-labor saving	1. Purification of viral DNA/RNA from serum. 2. Magnetic bead technology 3. Time-and-labor saving
Sample Source:	Bacterial culture	Whole blood, Bacterial culture, Cell culture, or Tissue	Bacterial culture Whole blood	serum
Sample Size:	Up to 1ml of bacterial culture	Up to 1 ml of bacterial culture (or an equivalent amount of cell culture, blood, or tissue)	Up to 1 ml of bacterial culture Up to 3 ml of whole blood	Up to 1 ml of serum
Typical Yield:	µg quantities	µg quantities	µg quantities	10^9–10^{10} copies of viral DNA/RNA
Operation Time	Within 50 minutes, but depends upon the sample type	Within 50 minutes, but depends upon the sample type	Within 50 minutes, but depends upon the sample type	Within 50 minutes,
Applications:	PCR, qPCR, DNA Cloning, Restriction Enzyme Digestion	PCR, qPCR, DNA Cloning, Restriction Enzyme Digestion	RT-PCR, qRT-PCR	RT-PCR, qRT-PCR
Required Material:	Ethanol, Micro-Centrifuge, Magnetic Separator, Water Bath or Dry Bath	Ethanol, Micro-Centrifuge, Magnetic Separator, Water Bath or Dry Bath	Ethanol, Micro-Centrifuge, Magnetic Separator, Water Bath	Ethanol, Micro-Centrifuge, Magnetic Separator, Water Bath or Dry Bath

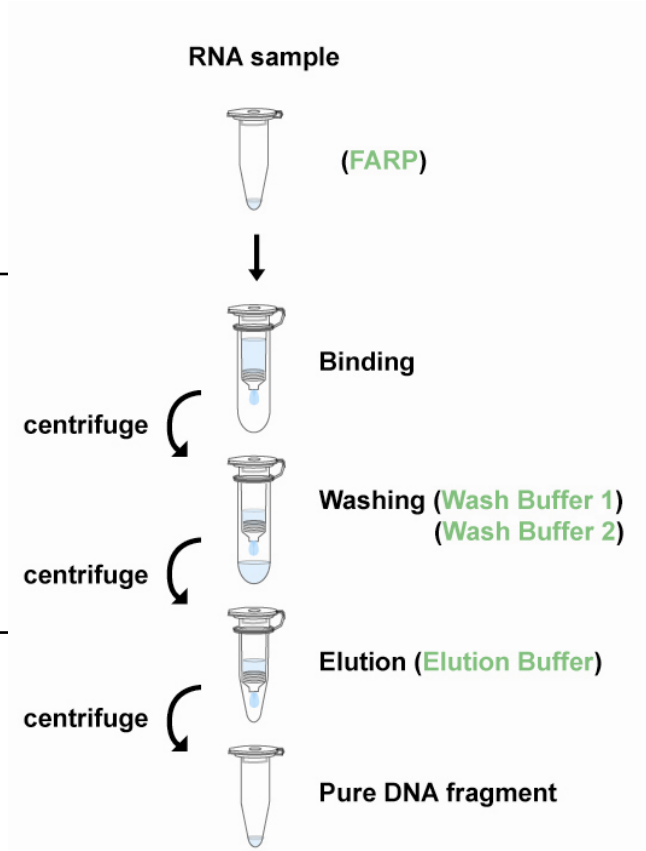
Complete Product Lines-96 Well System

	Plasmid DNA	Genomic DNA	Gel/PCR Clean Up	Total RNA	Viral DNA/RNA	Dye Removal
Procedure						
Usage:	High-throughout plasmid	Purification of total DNA from different samples, including blood, bodily fluids, tissues, mouse tails, swabs or cultured cells	High-throughput, rapid and economic method to purify fragment DNA	Purification of total RNA from cultured cells and fresh whole blood, and tissues	High-throughput purification of viral RNA or DNA	High-throughput purification of DNA sequencing reactions
Sample:	1-5ml of bacterial Culture	200 µl Fresh/ Frozen Blood 25mg animal tissues 5 x10^6 -10^7 animal cultured cells 1x 10^8 bacterial cultured cells	100µl PCR product 300 mg agarose gel slice	5 X 10^5 animal cultured cells 1 X 10^9bacteria cultured cells 0.3-1 ml fresh frozen blood	200 µl of fluids, serum, plasma, body fluids, or the supernatant of viral infected cell culture.	10-50 µl of sequencing reaction product
Format:	96 Well Plates	96 Well Plates	96 Well Plates	96 Well Plates	96 Well Plates	96 Well Plates
Operation:	centrifuge/ vacuum manifold	centrifuge/ vacuum manifold	centrifuge/ vacuum manifold	centrifuge/ vacuum manifold	centrifuge/ vacuum manifold	centrifuge/ vacuum manifold
Binding capacity:	up to 30 µg per well	up to 30 µg per well	10 µg per well	up to 60 µg per well	up to 60 µg per well	
Expected Yield: (Recovery Rate):	20-30 µg for high-copy plasmid 3-10 µg for low-copy plasmid	4-12 µgDNA from whole blood 30-40 µg from 10^7 cultured cells 5-30 µg from 25mg animal tissue	70-85% for gel extraction 90-95% for PCR clean up	0.5-2 µg for blood sample 60 µg for cultured cells	>90% recovery	
Elution Volume:	50-100 µl	50-100 µl	40-100 µl	50-100 µl	50-100ul	10-50 µl
Operation Time:(DNA Size)	Within 60 minutes	40-60 minutes after lysis	30 min.for Gel extraction 20 min for PCR Clean Up	40 minutes	40 minutes	15-20 minutes
Applications:	PCR / AFLP / RFLP / Southern Blotting/ Real-Time PCR	PCR / AFLP / RFLP / Southern Blotting/ Real-TimePCR	PCR / AFLP / RFLP Southern Blotting/ Real-Time PCR	RT-PCR, Quantitative RT-PCR, Differential display, cDNA synthesis, Nothern blot analysis, Primer extension, mRNA selection,	PCR, Real Time PCR	HT Desalting, HT Dye Terminator Removal, Buffer exchange

Complete Product Lines—Reagent Systme-Tri-RNAReagent

Usage	FavorPrep™ Tri-RNAReagent is a reagent from the improved phenol and guanidine isothiocyanate (GSN) method for the single-step RNA isolation.
Features	Single-step for the isolation of total RNA from tissues, cells, bacteria, plants, yeasts and biological fluids The entire procedure for total RNA isolation is less than 1 hour. The purified RNA can be applied in : RT-PCR, Northern hybridlation, RNase protection, Poly-A+RNA selection, Differential display, and Micro-array assay.
Procedure	**Procedure** 1. Add 1ml Tri-RNA Reagent to 100 mg tissue (or precipitated blood RNA viruses from up to 10 ml blood or 106 cultured cells or 10 cm2 of culture plate) 2. Homogenize tissue samples in Favorprep™ Tri-RNA Reagent using a glass-Teflon or Polytron homogenizer (cultured cells can be lysed by repetitive pipetting; concentrated blood RNA viruses can be lysed by vigorous vortexing). 3. Leave the homogenates for 5 minutes at room temperature. 4. Add 0.2ml chloroform (not provided) and mix vigorously. 5. Centrifuge at 12,000 rpm for 3 minutes to separate the phases, RNA is in the clear upper aqueous phase. 6. Transfer the RNA phase to a clean tube. 7. RNA is precipitated by adding 1x volume of isopropanol, vortex, leave at room temperature for 10 minutes, and then centrifuge at 12,000rpm for 15 minutes. 8. Remove the supernatant. 9. A brief spin to make sure the RNA pellet is precipitated to the designated side wall of the tube and then carefully remove any residue supernatant without touching the RNA pellet. 10. Re-suspend the RNA in a small volume of TE, pH8.0
	 Total RNA purified from human adipocytes using Tri-RNA reagent.  Total RNA purified from *E. coli* cells (3 samples) using Tri-RNA Reagent

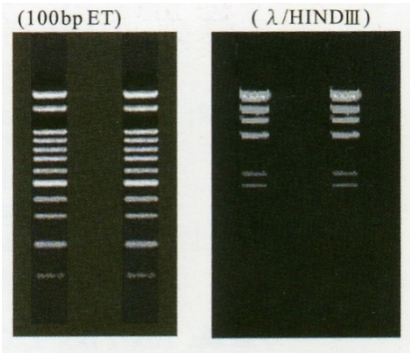
Complete Product Lines—After TriReagent RNA Clean Up Kit

Product Name	**FavorPrep After Tri-Reagent RNA Clean-UP Kit**
Description	The FavorPrep After Tri-Reagent RNA Clean-Up Kit is designed for fast clean up RNA that be isolated by different methods, such as guanidine isothiocyanate/phenol chloroform extraction or lithium chloride / phenol chloroform extraction and is also suitable for fast clean up RNA from enzymatic reaction mixture, such as labeling or DNase digestion reactions. In the purification procedure, combining the efficient reagents with the convenient spin-column system, impurities will remove completely. The entire procedure is not required the phenol-chloroform extraction and can be finished within 10 minutes. After using this purification kit, the purified RNA is ready for RT-PCR and other downstream application.
Procedure	
Features	**RNA clean up can be operated directly after the chloroform extraction without isopropanol precipitation.** **Sample Size:** Up to 100 μl of RNA sample or enzymatic reaction mixture. **High purity:** OD260/280: 1.9~21. **Binding Capacity:** Up to 100g **Handling Time:** Within 10 minutes **Expected Recovery:** 85~95% **Format:** Spin Column
Applications	Real-Time PCR Northern blotting hybridization Primer extension Differential display RNase protection assays As starting material for the purification of mRNA for cDNA synthesis

Complete Product Lines—Reagent System- RNA Stabilization Solution

Product Name:	Favor RNA Stabilization Solution
Description	Obtaining high quality, intact RNA is the first and often the most critical step in performing gene expression analysis. Typically, in order to isolate high quality RNA, the tissue has to be processed immediately after harvest. RNA Solution makes it possible for researchers to postpone RNA isolation for days, weeks, or even months after tissue collection without sacrificing RNA integrity. All we need to do is to add 10 times volume of RNA Solution into the tube containing the freshly collected tissue (1 ml RNA Solution to 100 mg tissue) and store the tube at –20℃ until use. In addition for RNA stabilization, RNA Solution can be easily integrated into a modified single-step RNA isolation method. This modified single-step method isolates undegraded RNA from tissues or cells in hours and can be used to process a large number of samples.
Features	1. RNA Solution makes it possible for researchers to postpone RNA isolation for days, weeks, or even months after tissue collection without sacrificing RNA integrity 2. RNA Solution can be easily integrated into a modified single-step RNA isolation method.
Procedure	**Procedure** 1. Store 100 mg of tissue or 107cells (isolated from culture or blood) with 1 ml of RNA Stabilization Solution at –20℃ until RNA isolation. 2. When processing, thaw and homogenize tissue in **RNA Stabilization Solution**. 3. Transfer 0.8 ml of the homogenate/cell mix into a 2 ml tube and add 0.8 ml of the acid-phenol, pH 5.2, and 320 μl of chloroform. 4. Vortex the mixture vigorously by mixing 4 times, 30 sec for each. 5. Centrifuge at 12,000 rpm for 2 min 6. Transfer the upper aqueous phase (containing RNA) to a fresh 2 ml tube, taking care not to disturb the interface (containing DNA/protein). 7. Precipitate the RNA by adding an equal volume (0.8 ml) of isopropanol and 80 μl of 3 M NaAc at –20℃ for 30 min 8. Centrifuge at 12,000 rpm for 15 min and discard the supernatant. 9. Wash the RNA pellet by using 200 μl of 70% ethanol and gentle inverting the tube for several times. 10. After a brief spin and careful removing the supernatant, let the RNA pellet to air dry for about 5-10 min. 11. Dissolve the RNA pellet in 20 μl DEPC-treated TE. 12. Store the samples at –20℃ and used for cDNA synthesis.

Complete Product Lines—Reagent System- FavorPrep Nucarrier

Product Name	FavorPrep Nucarrier
Description	The FavorPrep Nucarrier solution is a very efficient carrier for precipitation of nucleic acids (DNA or RNA)
Procedure	100 of solution (DNA or RNA) 1. Add 5μl of 3M sodium acetate 2. Add 5μl of FavorPrep Nucarrier 3. Add 220-250μl of Ethanol 4. 12,000 r.p.m for 5-7 minutes 5. Precipitates Note: The pellet should not be too dry, or it will be hard to dissolve. A semi-set condition is best.
Features	1. High Recovery Rate (Over 90%) 2. Time Saving (Only need 5 minutes) 3. No inhibition against various enzymatic reactions 4. Visible (FavorPrep Nucarrier forms a visible pellet)
Applications	For 100 applications (depending on sample amount)
Recommended Loading	5μl
Comparison of Recovery Efficiency	

Comparison Data

Comparison of Plasmid DNA Extraction Kit between Favorgen and Qiagene

Results:

i) Favorgen is equivalent or superior to Qiagen in YIELD

ii) Favorgen is equivalent to Qiagen in PURITY

Purity and Stability Test ***Each Sample Tested 3X***

FavorPrep Plasmid DNA Extraction Mini Kit	DH5α/TA			BL21/pET20b		
Volume	43	44	44	44.5	44.5	43.5
DNA conc.(ng/λ)	139.4	115.8	123.5	19.7	18.7	18
total DNA(μg)	5.99	5.01	5.43	0.88	0.83	0.78
A_{260}/A_{280}	1.92	1.91	1.91	1.78	2.03	1.82
Qiagen	DH5α/TA			BL21/pET20b		
Volume(λ)	44.5	44.5	45	46	44	45
DNA conc.(ng/λ)	112.2	100.8	105.7	20.6	24.8	19.9
total DNA(μg)	4.99	4.49	4.76	0.95	1.09	0.9
A_{260}/A_{280}	1.91	1.9	1.89	1.72	1.72	1.84

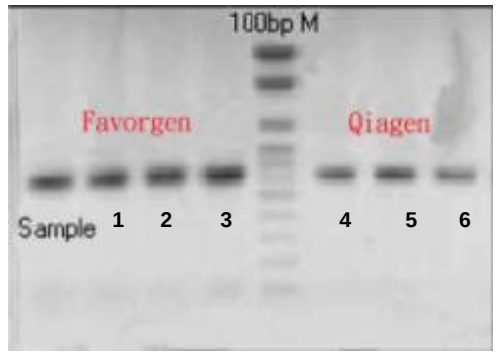


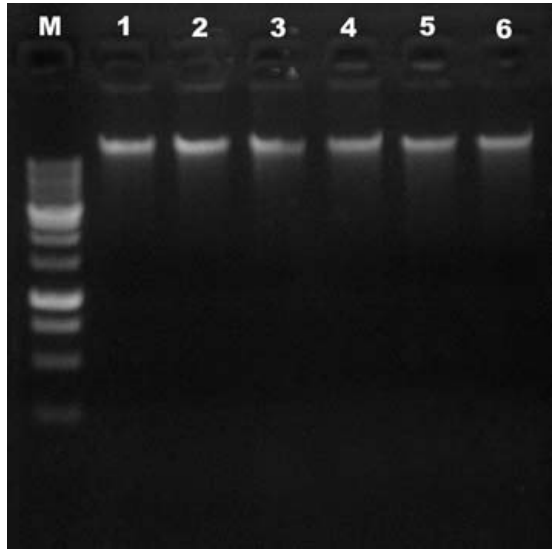
Fig.: Comparison: % Recovery

Lane 1: Sample
Lane 2-4: Favorgen
Lane 6-8:Qiagen

Comparison Data

Comparison of Blood Genomic DNA Extraction Kit between FAVORGEN and QIAGEN

		A230	A260	A280	A260/280	YIELD (μ g)
1	QIAGENE (Protienase K)	0.052	0.084	0.046	1.82	3.62
2	QIAGENE (Protienase K)	0.060	0.088	0.049	1.79	3.82
3	FAVORGEN (Protienase K)	0.065	0.091	0.051	1.80	3.96
4	FAVORGEN (Protienase K)	0.062	0.089	0.049	1.80	3.90
5	FAVORGEN (RBC Lysis)	0.038	0.059	0.032	1.85	2.54
6	FAVORGEN (RBC Lysis)	0.031	0.059	0.032	1.86	2.54



Sample: human whole blood stored at 4 ℃ for one day.

Sample volume: 200 μ

Results:

1. This comparison of Blood Genomic DNA Extraction Kits between FAVORGEN and QIAGEN was done with human whole blood as analyzing sample. In Lane 1-4, the Proteinase K was used to lyse hemoglobin. In Lane 5-6, the RBC Lysis method was used. The RBC Lysis method resulted in slightly lower yield than Proteinase method due to cold storage of blood sample for one day at 4℃.
2. The yields of FAVORGEN'S kits are equivalent to the yields of QIAGEN's kits according to the data analysis of Absorbance at 260 nm measured with a spectrophotometer.

Comparison Data

Genomic DNA extraction from 10 ml whole blood

Sample: 9 ml of fresh human blood

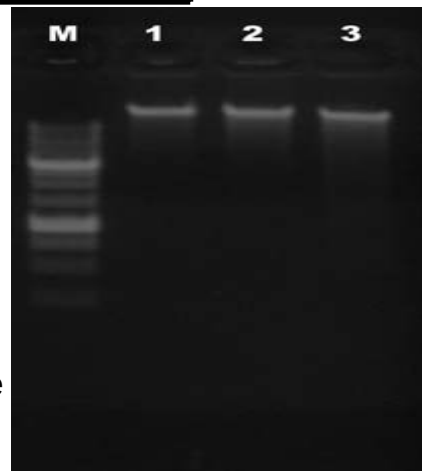
Test 1: Qiagen QIAamp Blood Maxi Kit (with Protease)
Test 2: FavorPrep Genomic DNA Maxi Kit (with Proteinase K)
Test 3: FavorPrep Genomic DNA Maxi Kit (with RBC Lysis step and without Proteinase K)

All procedures follow the protocols included in kits.
In order to remove RNA contamination, after Cell Lysis Step we add RNase A into lysate and incubate they at room temperature for 5 minutes (as our optional step in our protocol).
Elute DNA with 1 ml elution buffer twice and the final elution volume is about 1.9 ml

		A230	A260	A280	A260/280 conc. (μg/ml)		YIELD (μg)
1	**QIAGENE QIAamp blood Maxi Kit (w/Protienase K)**	0.160	0.302	0.161	1.89	90.5	181.0
2	**FavorPrep Genomic DNA Extraction Maxi Kit (w/Protienase K)**	0.162	0.310	0.162	1.86	90.4	180.8
3	**Favorprep Genomic DNA Extraction Maxi Kit (w/ RBC Lysis step and without Proteinase K)**	0.138	0.307	0.163	1.88	92.0	184.0

Conclusion:

1. Due to the limitation of blood sample volume, we therefore skip the optional RBC Lysis method, and take the fresh blood sample to run the fresh blood sample to run the following tests. The performance of Oiagen OIAamp Blood Maxi Kit and Favorgen FavorPrep Blood Genomic DNA Maxi Kit show the same quality both in yields and purity. When analyzed with fresh blood samples, the RBC Lysis buffer method and Proteinase K method shows similar quality.
2. In test 3, we use RBC Lysis buffer method to remove hemoglobin. The purified DNA contains less protein contamination as shown with lower A230 value.
3. The RNase treatment has removed the residual RNA, so the A260/A280 ration and the yield are correct.



Comparison Data

Comparison of Gel/PCR Extraction Kit between Favorgen and Qiagene

Results:
i) Favorgen is equivalent or superior to Qiagen in **YIELD**
ii) Favorgen is equivalent to Qiagen in **PURITY**

Purity and Stability Test ***Each Sample Tested 3X***

FavorPrep GEL/PCR Purification Kit	PCR Product			GEL Extraction		
Volume)	35.5	36.5	35	43	44.5	41
DNA conc.(ng/ λ)	69.8	66.6	71.3	25.2	24.5	36.2
total DNA(μ g)	2.48	2.43	2.5	1.08	1.1	1.48
A_{260}/A_{280}	1.85	1.97	1.86	1.8	1.7	1.88
Qiagen	PCR Product			GEL Extraction		
Volume)	37	37	37	46	46	46
DNA conc.(ng/ λ)	48.8	62.2	50.4	13.9	17.6	18.2
total DNA(μ g)	1.81	2.3	1.86	0.64	0.81	0.84
A_{260}/A_{280}	1.63	1.63	1.66	1.74	1.79	1.83

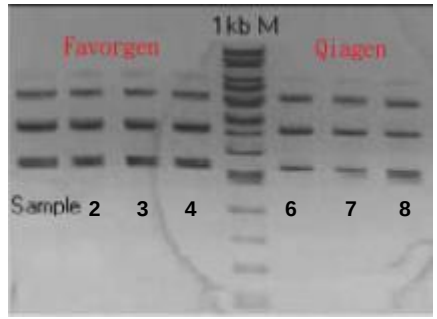
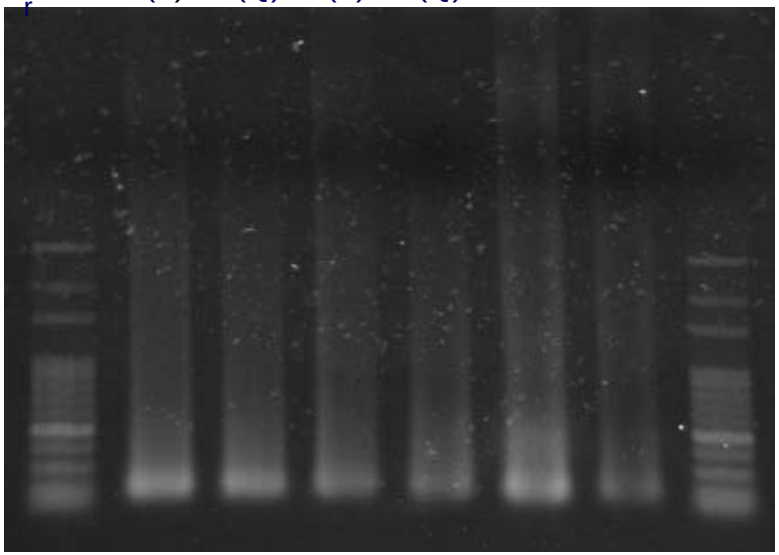


Fig.: Comparison: % Recovery

Lane 1: Sample
Lane 2-4: Favorgen
Lane 6-8:Qiagen

Comparison Data of Favorgen and QiagenPCR PurificationKit



Lane 1: DNA (synthesized by WY-547nm)after treating by Favorgen PCR Purification kit
Lane 2: DNA (synthesized by WY-547nm)after treating by Qiagen PCR Purification kit
Lane 3 DNA (synthesized by WY-647nm)after treating by Favorgen PCR Purification kit
Lane 4: DNA (synthesized by WY-647nm)after treating by Qiagen PCR Purification kit
Lane 5: DNA (synthesized by WY-547nm)
Lane 6: DNA (synthesized by WY-647nm)

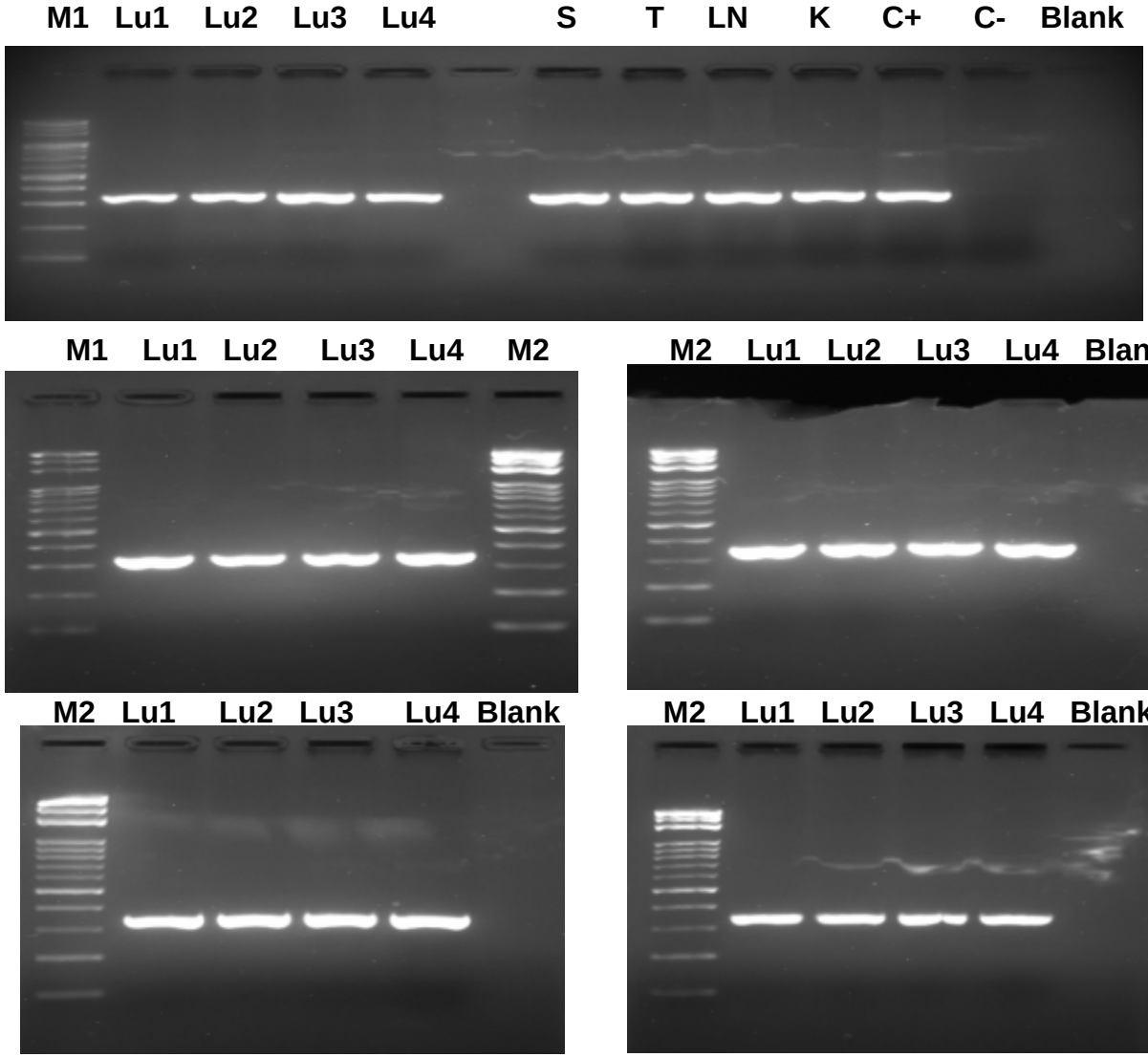
※ 1% Agarose gel analysis, DNA is stainded with ethidium bromide

; Optical Density (OD) after treating by Favorgen and Qiagen PCR Purification kit

Qiagen-547nm		Favorgen-547nm		Qiagen-647nm		Favorgen-647nm	
A547	A 260	A547	A260	A647	A260	A647	A260
0.079	0.267	0.076	0.283	0.141	0.268	0.172	0.333

∗Test equipment: Spectrophotomemeter Beckman DU530

Sample PCV2 & PRV Multiple PCR Result



PCR Products Size:
PCV2: 350bp
PRV: 290bp
此病例為:
PCV2(+)
PRV(-)

M1/ M2
Favorgene 100bp Ladder
5uL/well

Figure A DNA Extraction with Macherey-Nagel (MN) NucleoSpin Tissue® Kit
Figure B DNA Extraction with QIAamp Mini Column® Kit
Figure C DNA Extraction with Favorgen FavorPrep™ Tissue Genomic DNA Extraction Mini Kit
Figure D DNA Extraction with Promega Wizard® SV Genomic DNA Purifition System
Figure E DNA Extraction with Bioneer AccuPrep® Genomic DNA Extraction Kit

Comparison Data

Comparison of Viral Nucleic Acid Extraction Kit (DNA/RNA) Between Favorgen & Qiagen

Tests of HAV RNA

The analysis of following methods using Favorgen and Qiagen Kit:

1.Favorgen VB Buffer (carrier RNA)
2.Favorgen RNA Binding Buffer (carrier RNA)
3.Qiagen

Specimens are serial diluted with PBS Buffer as following:

HAV positive serum: 1X, 1/10X, 1/100X
HBV positive serum: 1X, 1/10X, 1/100X

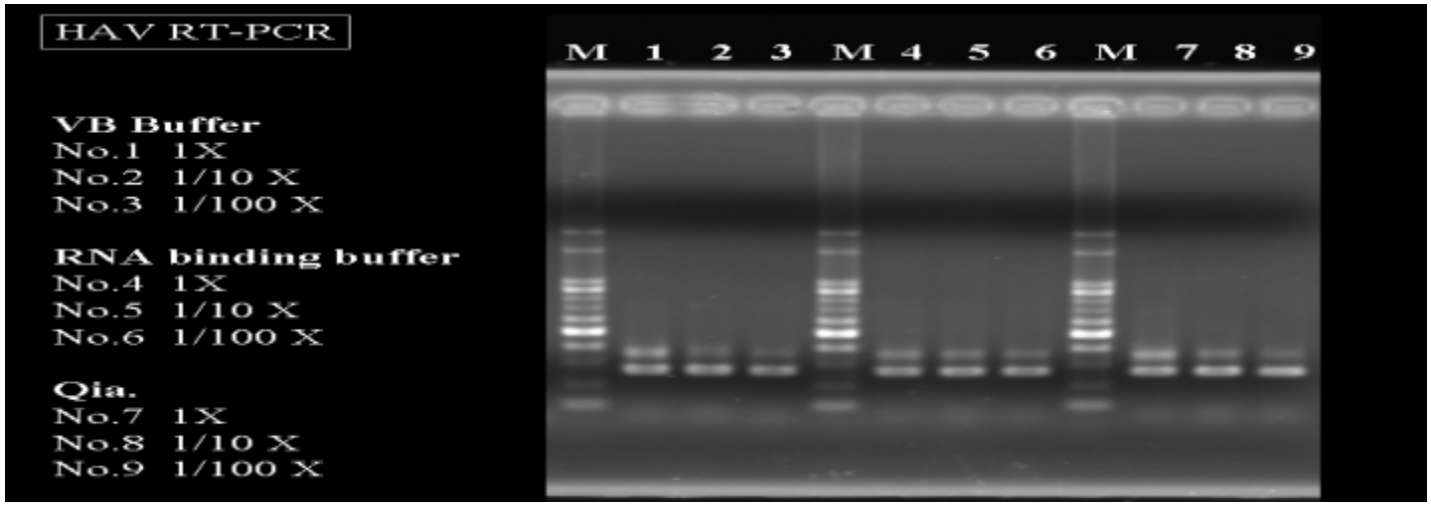
Comparison Methods:

Follow the standard protocol to extract (Favorgen requires 150 μl serum; Qiagen requires140 μl serum)

Detect the quantity of extracted nucleic acid:

HAV (RNA): RT-PCR
HBV (DNA): Real-time PCR

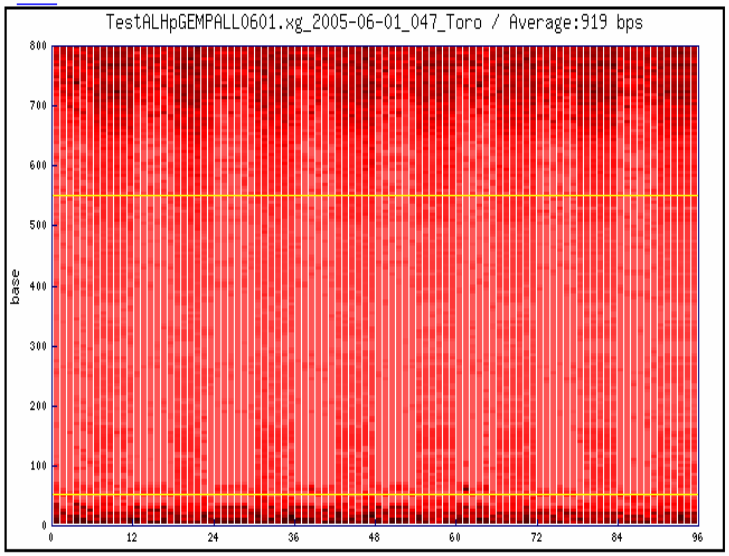
The result of HAV RT-PCR is shown as below:



Comparison Data

PCR Product Clean-Up

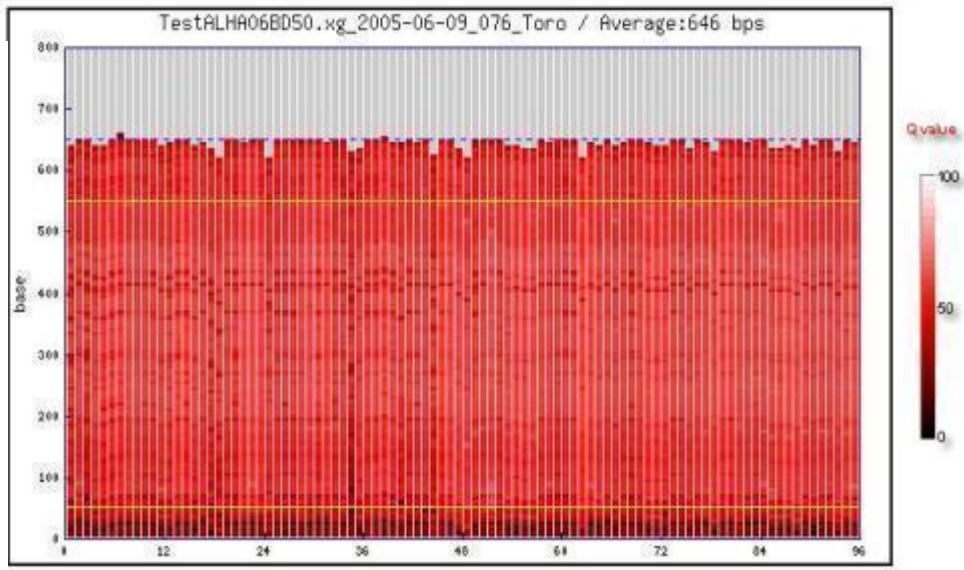
FavorPrep™ 96-well SEQ Dye Clean Up Kit



Q20 Length Table (GREEN: Q20len>=500; YELLOW: 500>Q20len>=200; RED: 200>Q20len)

#	01	02	03	04	05	06	07	08	09	10	11	12	
A	901	893	877	870	901	889	895	857	875	846	867	822	0
B	896	878	880	882	890	896	891	871	857	836	864	872	0
C	909	900	879	879	868	900	847	840	867	859	865	852	96
D	891	907	869	869	884	887	863	851	882	858	848	842	
E	866	882	878	878	879	883	859	862	867	871	886	901	
F	880	878	865	859	872	888	863	866	874	862	867	862	
G	875	886	854	884	866	872	871	887	852	866	852	861	
H	894	869	878	882	873	878	851	864	865	843	865	866	

Millipore SEQ96 kit



Q20 Length Table (GREEN: Q20len>=500; YELLOW: 500>Q20len>=200; RED: 200>Q20len)

#	01	02	03	04	05	06	07	08	09	10	11	12	
A	635	640	639	634	638	643	643	642	646	646	641	635	0
B	641	647	647	636	644	628	621	645	647	638	642	643	0
C	618	645	648	640	645	644	640	640	652	645	610	630	96
D	648	651	641	641	631	647	638	637	624	648	646	630	
E	622	643	649	651	641	633	630	631	632	640	638	645	
F	645	645	617	637	632	644	634	642	645	643	637	633	
G	631	645	643	634	643	640	625	645	643	649	640	640	
H	646	632	631	635	630	641	627	642	644	625	645	641	

Sciclone ALH 3000
Sample: A06 (from PCR product)
DYe:DNA = 4.2:1.4
PCR program = BD50