MagCore® Genomic DNA Whole Blood Kit (Speedy Installation)

For purification of genomic DNA from human whole blood
Applicable Models : HF16, Compact, HF48, Super, HF16 Plus, Plus II

Cartridge Code 101

Cat.No. MGB400-01 // MGB400-02

Kit Contents

Check that the following parts are included in addition to the main unit:

Cat.No. MGB400-01 Contents:

Pre-filled Cartridge Reagent	*36 pcs.*
Pipet Tip plus Holder Set	*36 sets.*
Sample Tube	*36 pcs.*
Elution Tube	*36 pcs.*

Cat.No. MGB400-02 Contents:

Pre-filled Cartridge Reagent	*96 pcs.*
Pipet Tip plus Holder Set	*100 sets.*
Sample Tube	*100 pcs.*
Elution Tube	*100 pcs.*

Storage and Stability :

1. This kit should be stored at room temperature.
2. Shelf Life: 12 Months.

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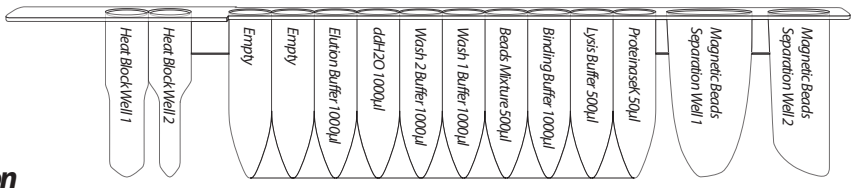


Description

MagCore® Genomic DNA Whole Blood Kit is designed for purification of total DNA (including genomic, mitochondrial and viral DNA) from whole blood, plasma, serum, buffy coat by using MagCore® auto-extraction instrument. The method uses pre-filled cartridge which contains proteinase K and chaotropic salt to lyse cells and degrade protein.

DNA will bind to cellulose coated Magnetic Beads . After washing off the contaminants, the purified DNA is eluted by low salt elution buffer. Purified DNA of approximately 20-30 kb in length is suitable for PCR or other enzymatic reactions.

Applications

Using magnetic-particle technology to purify genomic DNA from fresh whole blood. The purified genomic DNA can be directly used for downstream application such as quantitative PCR, restriction enzyme digestion, southern blotting, etc.

Whole Blood Protocol

1. Pipet 200/400µl of equilibrated whole blood sample to MagCore® Sample Tube.
2. Put the prepared Sample Tube into the correct well of T-Rack.
3. Put Elution Tube and Tip Plus Holder Set (HF16, Compact) / Pipette Tip (Super, Plus) into the correct wells of the T-Rack. (see page 3-10)
4. Run Code 101 program at MagCore®.

Optional Step: RNA Degradation

If RNA-Free genomic DNA is required, perform these optional steps.

1. Add 4µl RNase A (50mg/ml; not provided) into the sample lysate.
2. Incubate the sample at room temperature for 20min.

Buffy Coat Modify Protocol

RBC Lysis Buffer:

150 mM NH_4Cl, 10mM $KHCO_3$, 0.1mM EDTA.

Buffy Coat Preparation by RBC Lysis

1. Take 600 ~ 700µl whole blood into 2ml microcentrifuge tube.

Don't take more than 700µl whole blood sample; it will cause the leakage situation during process.

2. Add 1ml RBC Lysis Buffer and mix the buffer and whole blood sample by upside down.
3. Shake the mixture, 100rpm 5mins.
4. Centrifuge the mixture at 13,000 rpm for 1 min.
5. Discard supernatant.
6. Repeat steps 2 ~ 5 to wash the sample again.
7. Add 400µl RBC Lysis Buffer to resuspend the pellet and transfer into MagCore® Sample Tube.
8. Put the prepared Sample Tube into the correct well of T-Rack. (see page 3-10)
9. Put Elution Tube and Tip Plus Holder Set (HF16, Compact) / Pipette Tip (Super, Plus) into the correct wells of T-Rack. (see page 3-10)
   Run Code 101 program at MagCore®.

Buffy Coat Preparation by Centrifugation

1. Take 2 ~ 5ml whole blood sample and centrifuge at 1,500rpm 10mins.
2. Use plastic drop to take white buffy coat layer in the middle of whole blood sample.
3. Move the buffy coat into new microcentrifuge tube.
4. Take 80 ~ 100µl buffy coat sample into MagCore® Sample Tube and add RBC Lysis Buffer or PBS until 400µl.
5. Put the prepared Sample Tube into the correct well of T-Rack.
6. Put Elution Tube and Tip Plus Holder Set (HF16, Compact) / Pipette Tip (Super, Plus) into the correct wells of T-Rack. (see page 3-10)
7. Run Code 101 program at MagCore®.

Note : We suggest to select 150 ~200µl elution buffer, it can get better elution efficiency in both of these methods. Normally the concentration is higher than 150ng/µl under such elution volume.

MagCore® Genomic DNA Whole Blood Kit

For purification of genomic DNA from human whole blood
Applicable Models : HF16, Compact, HF48, Super, HF16 Plus, Plus II

Cartridge Code 102

Cat.No. MGB400-03 // MGB400-04

Kit Contents

Check that the following parts are included in addition to the main unit:

Cat.No. MGB400-03 Contents:

Pre-filled Cartridge Reagent	*36 pcs.*
Pipet Tip plus Holder Set	*36 sets.*
Sample Tube	*36 pcs.*
Elution Tube	*36 pcs.*
Proteinase K(11mg)	*2 pcs.*
PK Storage Buffer	*2 pcs.*

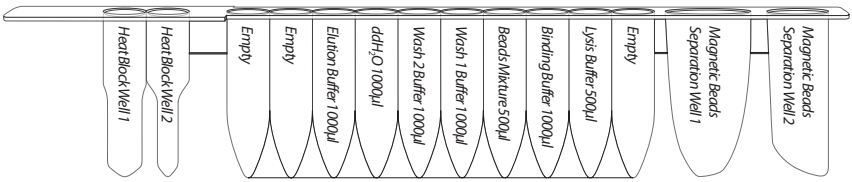
Cat.No. MGB400-04 Contents:

Pre-filled Cartridge Reagent	*96 pcs.*
Pipet Tip plus Holder Set	*100 sets.*
Sample Tube	*100 pcs.*
Elution Tube	*100 pcs.*
Proteinase K(11mg)	*4 pcs.*
PK Storage Buffer	*4 pcs.*

Storage and Stability :

1. This kit should be stored at room temperature.
2. Proteinase K should be stored at 2-8℃ upon arrival.
3. Shelf Life: 18 Months.

Cartridge Contents :



Description

MagCore® Genomic DNA Whole Blood Kit is designed for purification of total DNA (including genomic, mitochondrial and viral DNA) from whole blood, plasma, serum, buffy coat by using MagCore® auto-extraction instrument. The method uses a pre-filled cartridge which contains chaotropic salt to lyse cells and degrade protein. DNA will bind to cellulose coated magnetic beads. After washing off the contaminants, the purified DNA is eluted by low salt elution buffer. Purified DNA of approximately 20-30 kb in length is suitable for PCR or other enzymatic reactions.

Applications

Using magnetic-particle technology to purify genomic DNA from fresh whole blood. The purified genomic DNA can be directly used for downstream application such as quantitative PCR, restriction enzyme digestion, southern blotting, etc.

Preparation Before Using

1. Add 1.1ml PK Storage Buffer to the Proteinase K tube and mix by vortexing. Store prepared Proteinase K (10mg/ml) at 2-8℃

Whole Blood Protocol

1. Take a new Sample Tube and add 20µl of Proteinase K (10mg/ml) to 200µl of equilibrated whole blood sample.
(40µl Proteinase K to 400µl whole blood).
2. Put the prepared Sample Tube into the correct well of T-Rack. (see page 3-10)
3. Put Elution Tube and Tip Plus Holder Set (HF16, Compact) / Pipette Tip (Super, Plus) into the correct wells of the T-Rack. (see page 3-10)
Run Code 102 program at MagCore®.

Optional Step: RNA Degradation

If RNA-Free genomic DNA is required, perform these optional steps before adding Proteinase K.

1. Add 4µl RNase A (50mg/ml; not provided) into the sample lysate.
2. Incubate the sample at room temperature for 20mins.

Buffy Coat Modify Protocol

RBC Lysis Buffer:

150mM NH_4Cl, 10mM $KHCO_3$, 0.1mM EDTA.

Buffy Coat Preparation by RBC Lysis

1. Take 600 ~ 700µl whole blood into 2ml microcentrifuge tube.
Don't take more than 700µl whole blood sample; it will cause leaking during process.
2. Add 1ml RBC Lysis Buffer and mix the buffer and whole blood sample doing upside down movements.
3. Shake the mixture at 100 rpm for 5 mins.
4. Centrifuge the mixture at 13,000 rpm for 1 min.
5. Discard supernatant.
6. Repeat steps 2 ~ 5 to wash the sample again.
7. Add 400µl RBC Lysis Buffer and add 40µl of proteinase K to resuspend the pellet and transfer into MagCore® Sample Tube.
8. Put the prepared Sample Tube into the correct well of T-Rack. (see page 3-10)
9. Put Elution Tube and Tip Plus Holder Set (HF16, Compact) / Pipette Tip (Super, Plus) into the correct wells of T-Rack. (see page 3-10)
10. Run Code 102 program at MagCore®.

Buffy Coat Preparation by Centrifugation

1. Take 2 ~ 5ml whole blood sample and centrifuge at 1,500 rpm for 10 mins.
2. Use plastic drop to take white buffy coat layer in the middle of whole blood sample.
3. Move the buffy coat into new microcentrifuge tube.
4. Take 80 ~ 100µl buffy coat sample into MagCore® Sample Tube and add RBC Lysis Buffer or PBS until 400µl then add 40µl of proteinase K.
5. Put the prepared Sample Tube into the correct well of T-Rack.
6. Put Elution Tube and Tip Plus Holder Set (HF16, Compact) / Pipette Tip (Super, Plus) into the correct wells of T-Rack. (see page 3-10)
7. Run Code 102 program at MagCore®.

Note : We suggest to select 150 ~200µl elution buffer, it can get better elution efficiency in both of these methods. Normally the concentration is higher than 150ng/µl under such elution volume.

MagCore® Genomic DNA Large Volume Whole Blood Kit

For purification of genomic DNA from human whole blood (1.2 ml)
Applicable Models : HF16, Compact, HF48, Super, HF16 Plus, Plus II

Cartridge Code 104

Cat.No. MGB1200

Kit Contents

Check that the following parts are included in addition to the main unit:

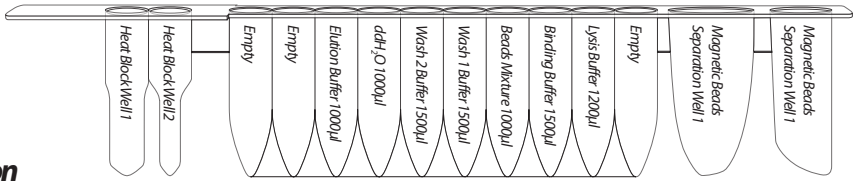
Cat.No. MGB1200 Contents:

Pre-filled Cartridge Reagent	*96 pcs.*
Pipet Tip plus Holder Set	*100 sets.*
Sample Tube	*100 pcs.*
Elution Tube	*100 pcs.*
Proteinase K(11mg)	*8 pcs.*
PK Storage Buffer	*8 pcs.*

Storage and Stability :

1. This kit should be stored at room temperature.
2. Proteinase K should be stored at 2-8℃ upon arrival.
3. Shelf Life: 18 Months.

Cartridge Contents :



Description

MagCore® Genomic DNA Large Volume Whole Blood kit is designed to extract genomic DNA from 1.2ml fresh whole blood via MagCore® auto-extraction instrument. The kit contains all required reagents and labware for automated purification using magnetic-particle technology. Combination of an easy program selection of code number 104 in MagCore® and using MagCore® Genomic DNA Large Volume Whole Blood Kit can extract high quality genomic DNA.

Applications

Using magnetic-particle technology to purify genomic DNA from 1.2ml fresh whole blood. The purified genomic DNA can be directly used for downstream application such as quantitative PCR, restriction enzyme digestion, southern blotting, etc.

Preparation Before Using

1. Add 1.1ml PK Storage Buffer to the Proteinase K tube and mix by vortexing. Store prepared Proteinase K (10mg/ml) at 2-8℃

Protocol

1. Pipet Proteinase K 80 µl into the MagCore® Sample Tubes.
2. Add 1200 µl whole blood into the prepared Sample Tube.
3. Put the prepared Sample Tube into the correct well of T-Rack. (see page 3-10)
4. Put Elution Tube and Tip Plus Holder Set (HF16, Compact) / Pipette Tip (Super, Plus) into the correct wells of the T-Rack. (see page 3-10)
5. Run Code 104 program at MagCore®.

Note: Beads or precipitate in eluent might be present in viscous samples. This situation will not affect the yield, purity and downstream applications. Reduction of sample volume or simple centrifugation will remove the residual beads.

MagCore® Genomic DNA Whole Blood Kit (For Genotyping)

Purify genomic DNA from human whole blood for genotyping.
Applicable Models : HF16, Compact, HF48, Super, HF16 Plus, Plus II

Cartridge Code 106

Cat.No. MGB400-07 // MGB400-08

Kit Contents

Check that the following parts are included in addition to the main unit:

Cat.No. MGB400-07 Contents:

Pre-filled Cartridge Reagent	*36 pcs.*
Pipet Tip plus Holder Set	*36 sets.*
Sample Tube	*36 pcs.*
Elution Tube	*36 pcs.*
Proteinase K(11mg)	*2 pcs.*
PK Storage Buffer	*2 pcs.*

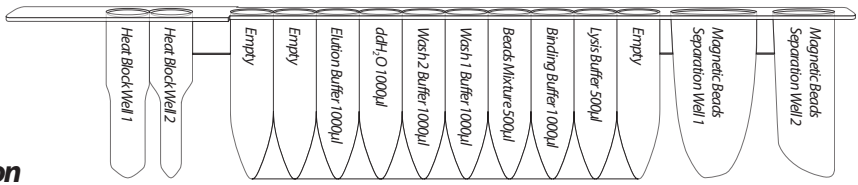
Cat.No. MGB400-08 Contents:

Pre-filled Cartridge Reagent	*96 pcs.*
Pipet Tip plus Holder Set	*100 sets.*
Sample Tube	*100 pcs.*
Elution Tube	*100 pcs.*
Proteinase K(11mg)	*4 pcs.*
PK Storage Buffer	*4 pcs.*

Storage and Stability :

1. This kit should be stored at room temperature.
2. Proteinase K should be stored at 2-8 ℃ upon arrival
3. Shelf Life: 18 Months.

Cartridge Contents :



Description

This kit is designed for genotyping application, you can get completed gDNA from eluent. We modified the reagent components and the machine operation to make this kit more suitable for genotyping. The pre-filled cartridge contains chaotropic salt and guanidine hydrochloride for cell lysis and protein degradation. The chaotropic salt helps the strong binding of DNA and cellulose coated magnetic beads. After the removal of contaminants, the high quality DNA is eluted by low salt elution buffer or water. Purified DNA of approximately 20-30 kb in length is suitable for genotyping or other applications.

Applications

Use magnetic-particle technology to purify genomic DNA from whole blood and buffy coat. The purified genomic DNA can be directly used for downstream application such as genotyping, PCR, real-time PCR, restriction enzyme digestion, southern blotting, etc.

Preparation Before Using

1. Add 1.1ml PK Storage Buffer to the Proteinase K tube and mix by vortexing. Store prepared Proteinase K (10mg/ml) at 2-8 ℃

Whole Blood Protocol

1. Take a new Sample Tube and add 20µl of Proteinase K (10mg/ml) to 200µl of equilibrated whole blood sample. (40µl Proteinase K to 400µl whole blood).
2. Put the prepared Sample Tube into the correct well of T-Rack. (see page 3-10)
3. Put Elution Tube and Tip Plus Holder Set (HF16, Compact) / Pipette Tip (Super, Plus) into the correct wells of the T-Rack. (see page 3-10) Run Code 106 program at MagCore®.

Optional Step: RNA Degradation

If RNA-Free genomic DNA is required, perform these optional steps before adding Proteinase K.

1. Add 4µl RNase A (50mg/ml; not provided) into the sample lysate.
2. Incubate the sample at room temperature for 20min

Buffy Coat modify Protocol

RBC Lysis Buffer:

150mM NH_4Cl, 10mM $KHCO_3$, 0.1mM EDTA.

Buffy Coat Preparation by RBC Lysis

1. Take 600 ~ 700µl whole blood into 2ml microcentrifuge tube.

Don't take more than 700µl whole blood sample; it will cause leaking during process.

2. Add 1ml RBC Lysis Buffer and mix the buffer and whole blood sample doing upside down movements.
3. hake the mixture at 100 rpm for 5 mins.
4. Centrifuge the mixture at 13,000 rpm for 1 min.
5. Discard supernatant.
6. Repeat steps 2 ~ 5 to wash the sample again.
7. Add 400µl RBC Lysis Buffer and 40µl proteinase K to resuspend the pellet and transfer into MagCore® Sample Tube.
8. Put the prepared Sample Tube into the correct well of T-Rack. (see page 3-10)
9. Put Elution Tube and Tip Plus Holder Set (HF16, Compact) / Pipette Tip (Super, Plus) into the correct wells of the T-Rack. (see page 3-10)
10. Run Code 106 program at MagCore®.

Buffy Coat Preparation by Centrifugation

1. Take 2 ~ 5ml whole blood sample and centrifuge at 1,500 rpm for 10 mins.
2. Use plastic drop to take white buffy coat layer in the middle of whole blood sample.
3. Move the buffy coat into new microcentrifuge tube.
4. Take 80 ~ 100µl buffy coat sample into MagCore® Sample Tube and add RBC Lysis Buffer or PBS until 400µl then add 40µl of proteinase K.
5. Put the prepared Sample Tube into the correct well of T-Rack. (see page 3-10)
6. Put Elution Tube and Tip Plus Holder Set (HF16, Compact) / Pipette Tip (Super, Plus) into the correct wells of the T-Rack. (see page 3-10)
7. Run Code 106 program at MagCore®.

Note : We suggest to select 150 ~200µl elution buffer, it can get better elution efficiency in both of these methods. Normally the concentration is higher than 150ng/µl under such elution volume.