Quick Guide

MYgen Genomic DNA Prep Kit - Blood Protocol

Products	Cat No.	Size
MYgen Genomic DNA Prep Kit (Multiple sample types)	MYG141-050	50 preps
	MYG141-100	100 preps

Kit Contents:
GD1/GD2/PPB/GB
Proteinase K
Lysozyme
RNase A
WB bottle
DNA Hydration Solution
Spin column / Collection tube

1. 200 uL Whole Blood
   Add 200 uL GD2
   Add 5 uL Proteinase K (20mg/mL)
   Vortex (1 min)
   Incubate mixture (10 mins, at 56°C)
2. Add 200 uL GB to Step 1 mixture
   Invert (10 -20 times to mix well)
3. Transfer Step 2 mixture into spin column + 2 mL collection tube provided
   Centrifuge (7,000 rpm, 1 min)
   Discard flow through
   Place spin column into new 2 mL collection tube.
4. Add 500 uL WB (80% Ethanol) into spin column
   Centrifuge (13,000 rpm, 30 sec)
   Discard flow-through
   Repeat WB washing step again
5. Centrifuge (13,000 rpm, 2 mins)
   Discard 2mL collection tube and replace with new 1.5mL microtube
6. Add 50 uL-100 uL DNA Hydration Solution
   Incubate mixture (RT, 1 min)
   Centrifuge (13,000 rpm, 2 mins)
   Discard spin column

DNA Elution
Store microtube at 4°C or -20°C

Preparation:
- Prepare 80% Ethanol (not provided) in the WB bottle.
  Note: Make it fresh directly before use.
- Recommended to use at least 200 uL of fresh blood.
- Add Deionized Water to lyophilized Proteinase K, Lysozyme and RNAse A with the instructions as listed on the tube.

Protocol:
1. Add 200 uL GD2 to prepared whole blood cell (200 uL)
   - Add 5 uL of Proteinase K (20mg/mL)
   - Vortex for 1 minute
   - Incubate the mixture for 10 minutes at 56°C
2. Add 200 uL GB to mixtures and mix well by Inverting 10 to 20 times.
3. Transfer solution from Step 2 into the spin column with 2 mL collection tube that is provided
   - Centrifuge at 7,000 rpm for 1 min
   - Discard flow-through, place the spin column into a new 2 mL collection tube provided.
4. Add 500 uL WB (80% Ethanol) to the spin column
   - Centrifuge at 13,000 rpm for 30 sec
   - Discard flow-through, place back the spin column into 2 mL collection tube
   - Repeat Step 4 washing again
5. Centrifuge again at 13,000 rpm for 2 mins to remove leftover residues
6. Place the spin column in a new 1.5 mL micro tube (not provided)
   - Discard the used 2 mL collection tube
7. Add 50 uL to 100 uL of DNA Hydration Solution
   - Incubate the mixture for 1 mins at RT
   - Centrifuge at 13,000 rpm for 2 mins
   - Discard the spin column
   - Check the concentration and purity of DNA by Electrophoresis or appropriate method
   - Store at 4°C or -20°C

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Quick Guide

MYgen Genomic DNA Prep Kit - Plant Protocol

Products	Cat No.	Size
MYgen Genomic DNA Prep Kit (Multiple sample types)	MYG141-050	50 preps
	MYG141-100	100 preps

Kit Contents:
GD1/GD2/PPB/GB
Proteinase K
Lysozyme
RNase A
WB bottle
DNA Hydration Solution
Spin column / Collection tube

1. Prepared plant sample (10 mg - 80 mg)
   Add 350 uL GD1
   Add 5 uL Proteinase K (20 mg/mL)
   Add 2 uL RNAse A (4 mg/mL)
   Vortex (1 min)
   Incubate mixture (10 mins, at 56°C)

2. Add 100 uL PPB to Step 1 mixture
   Vortex (10 sec)
   Centrifuge (13,000 rpm , 5 mins)
   Transfer supernatant into new micro tube
   Add 200 uL GB and invert (10 - 20 times)

3. Transfer Step 2 mixture into spin column + 2 mL collection tube provided
   Centrifuge (7,000 rpm, 1 min)
   Discard flow through
   Place spin column into new 2 mL collection tube.

4. Add 500 uL WB (80% Ethanol) into spin column
   Centrifuge (13,000 rpm, 30 sec)
   Discard flow-through
   Repeat WB washing step again

5. Centrifuge (13,000 rpm, 2 mins)
   Discard 2mL collection tube
   Replace with new 1.5mL microtube

6. Add 50 uL-100 uL DNA Hydration Solution
   Incubate mixture (RT, 1 min)
   Centrifuge (13,000 rpm, 2 mins)
   Discard spin column

DNA Elution
Store microtube at 4°C or -20°C

Preparation:
- Prepare 80% Ethanol (not provided) in the WB bottle.
  Note: Make it fresh directly before use.
- Recommended to use of 10 - 80 mg of Plant sample.
  Grind fresh-freeze tissue using liquid nitrogen. Keep the temperature low and grind quickly to minimize DNase activity
- Add Deionized Water to lyophilized Proteinase K, Lysozyme and RNAse A with the instructions as listed on the tube.

Protocol:
1. Add 350 uL GD1 to prepared plant sample (10 mg to 80 mg)
   - Add 5 uL of Proteinase K (20 mg/mL) and 2 uL of RNase A (4 mg/mL)
   - Vortex for 1 minute
   - Incubate the mixture for 10 minutes at 56°C

2. Add 100 uL PPB to mixture from Step 1
   - Mix well by vortexing for 10 seconds.
   - Centrifuge at 13,000 rpm for 5 minutes.
   - Transfer supernatant into a new micro tube (not provided)
   - Add 200 uL GB and mix well by inverting 10 to 20 times.

3. Transfer solution from Step 2 into the spin column with 2 mL collection tube that is provided
   - Centrifuge at 7,000 rpm for 1 min
   - Discard flow-through, place the spin column into a new 2 mL collection tube provided.

4. Add 500 uL WB (80% Ethanol) to the spin column
   - Centrifuge at 13,000 rpm for 30 sec
   - Discard flow-through, place back the spin column into 2 mL collection tube
   - Repeat Step 4 washing again

5. Centrifuge again at 13,000 rpm for 2 mins to remove leftover residues

6. Place the spin column in a new 1.5 mL micro tube (not provided)
   - Discard the used 2 mL collection tube

7. Add 50 uL to 100 uL of DNA Hydration Solution
   - Incubate the mixture for 1 mins at RT
   - Centrifuge at 13,000 rpm for 2 mins
   - Discard the spin column
   - Check the concentration and purity of DNA by Electrophoresis or appropriate method
   - Store at 4°C or -20°C

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Quick Guide

MYgen Genomic DNA Prep Kit - Animal Tissue Protocol

Products	Cat No.	Size
MYgen Genomic DNA Prep Kit (Multiple sample types)	MYG141-050	50 preps
	MYG141-100	100 preps

Kit Contents:
GD1/GD2/PPB/GB
Proteinase K
Lysozyme
RNase A
WB bottle
DNA Hydration Solution
Spin column / Collection tube

1. Prepared animal tissue (10 mg - 80 mg)
   Add 200 uL GD1
   Add 5 uL Proteinase K (20 mg/mL)
   Add 2 uL RNAse A (4 mg/mL)
   Vortex (1 min)
   Incubate mixture (10 mins, at 56^{o}C)

2. Add 200 uL GD2 to Step 1 mixture
   Vortex (10 sec)
   Incubate mixture (10 mins, at 70^{o}C)
   Centrifuge (13,000 rpm , 5 mins)
   Transfer supernatant into new micro tube
   Add 200 uL GB and invert (10 - 20 times)

3. Transfer Step 2 mixture into spin column + 2 mL collection tube provided
   Centrifuge (7,000 rpm, 1 min)
   Discard flow through
   Place spin column into new 2 mL collection tube.

4. Add 500 uL WB (80% Ethanol) into spin column
   Centrifuge (13,000 rpm, 30 sec)
   Discard flow-through
   Repeat WB washing step again

5. Centrifuge (13,000 rpm, 2 mins)
   Discard 2mL collection tube
   Replace with new 1.5mL microtube

6. Add 50 uL-100 uL DNA Hydration Solution
   Incubate mixture (RT, 1 min)
   Centrifuge (13,000 rpm, 2 mins)
   Discard spin column

   DNA Elution
   Store microtube at 4^{o}C or -20^{o}C

Preparation:
- Prepare 80% Ethanol (not provided) in the WB bottle.
  Note: Make it fresh directly before use.
- Recommended to use of 10 - 80 mg of Animal tissue sample. Grind fresh-freeze tissue using liquid nitrogen. Keep the temperature low and grind quickly to minimize DNase activity
- Add Deionized Water to lyophilized Proteinase K, Lysozyme and RNAse A with the instructions as listed on the tube.

Protocol:
1. Add 200 uL GD1 to prepared animal tissue (10 mg to 80 mg)
   - Add 5 uL of Proteinase K (20mg/mL) and 2 uL of RNase A (4 mg/mL)
   - Vortex for 1 minute
   - Incubate the mixture for 10 minutes at 56^{o}C

2. Add 200 uL GD2 to mixture from Step 1
   - Mix well by vortexing for 10 seconds.
   - Incubate the mixture for 10 minutes at 70^{o}C
   - Centrifuge at 13,000 rpm for 5 minutes.
   - Transfer supernatant into a new micro tube (not provided)
   - Add 200 uL GB and mix well by inverting 10 to 20 times.

3. Transfer solution from Step 2 into the spin column with 2 mL collection tube that is provided
   - Centrifuge at 7,000 rpm for 1 min
   - Discard flow-through, place the spin column into a new 2 mL collection tube provided.

4. Add 500 uL WB (80% Ethanol) to the spin column
   - Centrifuge at 13,000 rpm for 30 sec
   - Discard flow-through, place back the spin column into 2 mL collection tube
   - Repeat Step 4 washing again

5. Centrifuge again at 13,000 rpm for 2 mins to remove leftover residues

6. Place the spin column in a new 1.5 mL micro tube (not provided)
   - Discard the used 2 mL collection tube

7. Add 50 uL to 100 uL of DNA Hydration Solution
   - Incubate the mixture for 1 mins at RT
   - Centrifuge at 13,000 rpm for 2 mins
   - Discard the spin column
   - Check the concentration and purity of DNA by Electrophoresis or appropriate method
   - Store at 4^{o}C or -20^{o}C

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Quick Guide

MYgen Genomic DNA Prep Kit - Gram(+) Bacterium Protocol

Products	Cat No.	Size
MYgen Genomic DNA Prep Kit (Multiple sample types)	MYG141-050	50 preps
	MYG141-100	100 preps

Kit Contents:
GD1/GD2/PPB/GB
Proteinase K
Lysozyme
RNase A
WB bottle
DNA Hydration Solution
Spin column / Collection tube

1. Bacteria Cells (1 x 10^8)
   Add 200 uL GD1
   Add 2 uL Lysozyme (100 mg/mL)
   Vortex (1min)
   Incubate mixture (30 mins, at 37°C)

2. Add 200 uL GD2 to Step 1 mixture
   Add 4 uL Proteinase K (20 mg/mL)
   Add 2 uL RNAse A (4 mg/mL)
   Vortex (10 sec)
   Incubate mixture (30 mins, at 56°C)
   Incubate further (30 mins, at 70°C)
   Centrifuge (13,000 rpm , 5 mins)
   Transfer supernatant into new micro tube
   Add 200 uL GB and invert (10 - 20 times)

3. Transfer Step 2 mixture into spin column + 2 mL collection tube provided
   Centrifuge (7,000 rpm, 1 min)
   Discard flow through
   Place spin column into new 2 mL collection tube.

4. Add 500 uL WB (80% Ethanol) into spin column
   Centrifuge (13,000 rpm, 30 sec)
   Discard flow-through
   Repeat WB washing step again

5. Centrifuge (13,000 rpm, 2 mins)
   Discard 2mL collection tube
   Replace with new 1.5mL microtube

6. Add 50 uL-100 uL DNA Hydration Solution
   Incubate mixture (RT, 1 min)
   Centrifuge (13,000 rpm, 2 mins)
   Discard spin column

   DNA Elution
   Store microtube at 4°C or -20°C

Preparation:
- Prepare 80% Ethanol (not provided) in the WB bottle.
  Note: Make it fresh directly before use.
- If preservation of bacteria sample is needed, dispense 500 uL of bacteria cells (1 x 10^8 , 16 hours cultured cells) into 1.5 mL micro tube and perform centrifugation at 10,000 rpm for 1 min. Discard supernatant and store at -70°C.
- Add Deionized Water to lyophilized Proteinase K, Lysozyme and RNAse A with the instructions as listed on the tube.

Protocol:

1. Add 200 uL GD1 to bacteria cells (1 x 10^8)
   - Add 2 uL of Lysozyme (100 mg/mL)
   - Vortex for 1 minute
   - Incubate the mixture for 30 minutes at 37°C

2. Add 200 uL GD2 to mixture from Step 1
   - Add 4 uL of Proteinase K (20 mg/mL) and 2 uL of RNase A (4 mg/mL)
   - Mix well by vortexing for 10 seconds.
   - Incubate the mixture for 30 minutes at 56°C
   - Incubate further for 30 minutes at 70°C
   - Centrifuge at 13,000 rpm for 5 minutes.
   - Transfer supernatant into a new micro tube (not provided)
   - Add 200 uL GB and mix well by inverting 10 to 20 times.

3. Transfer solution from Step 2 into the spin column with 2 mL collection tube that is provided
   - Centrifuge at 7,000 rpm for 1 min
   - Discard flow-through, place the spin column into a new 2 mL collection tube provided.

4. Add 500 uL WB (80% Ethanol) to the spin column
   - Centrifuge at 13,000 rpm for 30 sec
   - Discard flow-through, place back the spin column into 2 mL collection tube
   - Repeat Step 4 washing again

5. Centrifuge again at 13,000 rpm for 2 mins to remove leftover residues

6. Place the spin column in a new 1.5 mL micro tube (not provided)
   - Discard the used 2 mL collection tube

7. Add 50 uL to 100 uL of DNA Hydration Solution
   - Incubate the mixture for 1 mins at RT
   - Centrifuge at 13,000 rpm for 2 mins
   - Discard the spin column
   - Check the concentration and purity of DNA by Electrophoresis or appropriate method
   - Store at 4°C or -20°C

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Quick Guide

MYgen Genomic DNA Prep Kit - Gram(-) Bacterium Protocol

Products	Cat No.	Size
MYgen Genomic DNA Prep Kit (Multiple sample types)	MYG141-050	50 preps
	MYG141-100	100 preps

Kit Contents:
GD1/GD2/PPB/GB
Proteinase K
Lysozyme
RNase A
WB bottle
DNA Hydration Solution
Spin column / Collection tube

1. Bacteria Cells (1 x 10^8)
   Add 200 uL GD1
   Add 4 uL Proteinase K (20 mg/mL)
   Add 2 uL RNAse A (4 mg/mL)
   Vortex (1 min)
   Incubate mixture (10 mins, at 56°C)

2. Add 200 uL GD2 to Step 1 mixture
   Vortex (10 sec)
   Incubate mixture (10 mins, at 70°C)
   Centrifuge (13,000 rpm , 5 mins)
   Transfer supernatant into new micro tube
   Add 200 uL GB and invert (10 - 20 times)

3. Transfer Step 2 mixture into spin column + 2 mL collection tube provided
   Centrifuge (7,000 rpm, 1 min)
   Discard flow through
   Place spin column into new 2 mL collection tube.

4. Add 500 uL WB (80% Ethanol) into spin column
   Centrifuge (13,000 rpm, 30 sec)
   Discard flow-through
   Repeat WB washing step again

5. Centrifuge (13,000 rpm, 2 mins)
   Discard 2mL collection tube
   Replace with new 1.5mL microtube

6. Add 50 uL-100 uL DNA Hydration Solution
   Incubate mixture (RT, 1 min)
   Centrifuge (13,000 rpm, 2 mins)
   Discard spin column

   DNA Elution
   Store microtube at 4°C or -20°C

Preparation:
- Prepare 80% Ethanol (not provided) in the WB bottle.
  Note: Make it fresh directly before use.
- If preservation of bacteria sample is needed, dispense 500 uL of bacteria cells (1 x 10^8 , 16 hours cultured cells) into 1.5 mL micro tube and perform centrifugation at 10,000 rpm for 1 min. Discard supernatant and store at -70°C.
- Add Deionized Water to lyophilized Proteinase K, Lysozyme and RNAse A with the instructions as listed on the tube.

Protocol:

1. Add 200 uL GD1 to bacteria cells (1 x 10^8)
   - Add 4 uL of Proteinase K (20 mg/mL) and 2 uL of RNase A (4 mg/mL)
   - Vortex for 1 minute
   - Incubate the mixture for 10 minutes at 56°C

2. Add 200 uL GD2 to mixture from Step 1
   - Mix well by vortexing for 10 seconds.
   - Incubate the mixture for 10 minutes at 70°C
   - Centrifuge at 13,000 rpm for 5 minutes.
   - Transfer supernatant into a new micro tube (not provided)
   - Add 200 uL GB and mix well by inverting 10 to 20 times.

3. Transfer solution from Step 2 into the spin column with 2 mL collection tube that is provided
   - Centrifuge at 7,000 rpm for 1 min
   - Discard flow-through, place the spin column into a new 2 mL collection tube provided.

4. Add 500 uL WB (80% Ethanol) to the spin column
   - Centrifuge at 13,000 rpm for 30 sec
   - Discard flow-through, place back the spin column into 2 mL collection tube
   - Repeat Step 4 washing again

5. Centrifuge again at 13,000 rpm for 2 mins to remove leftover residues

6. Place the spin column in a new 1.5 mL micro tube (not provided)
   - Discard the used 2 mL collection tube

7. Add 50 uL to 100 uL of DNA Hydration Solution
   - Incubate the mixture for 1 mins at RT
   - Centrifuge at 13,000 rpm for 2 mins
   - Discard the spin column
   - Check the concentration and purity of DNA by Electrophoresis or appropriate method
   - Store at 4°C or -20°C

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Quick Guide

MYgen Genomic DNA Prep Kit - Fungus Protocol

Products	Cat No.	Size
MYgen Genomic DNA Prep Kit (Multiple sample types)	MYG141-050	50 preps
	MYG141-100	100 preps

Kit Contents:
GD1/GD2/PPB/GB
Proteinase K
Lysozyme
RNase A
WB bottle
DNA Hydration Solution
Spin column / Collection tube

1. Fungi cell pellet
   Add 200 uL GD1
   Add 5 uL Proteinase K (20 mg/mL)
   Vortex (1 min)
   Incubate mixture (10 mins, at 56°C)

2. Add 200 uL GD2 to Step 1 mixture
   Vortex (10 sec)
   Centrifuge (13,000 rpm , 5 mins)
   Transfer supernatant into new micro tube
   Add 200 uL GB and invert (10 - 20 times)

3. Transfer Step 2 mixture into spin column + 2 mL collection tube provided
   Centrifuge (7,000 rpm, 1 min)
   Discard flow through
   Place spin column into new 2 mL collection tube.

4. Add 500 uL WB (80% Ethanol) into spin column
   Centrifuge (13,000 rpm, 30 sec)
   Discard flow-through
   Repeat WB washing step again

5. Centrifuge (13,000 rpm, 2 mins)
   Discard 2mL collection tube
   Replace with new 1.5mL microtube

6. Add 50 uL-100 uL DNA Hydration Solution
   Incubate mixture (RT, 1 min)
   Centrifuge (13,000 rpm, 2 mins)
   Discard spin column

DNA Elution
Store microtube at 4°C or -20°C

Preparation:
- Prepare 80% Ethanol (not provided) in the WB bottle.
  Note: Make it fresh directly before use.
- Recommended to use liquid fungi culture media. If cells have been preserved in the plate for a long time add Deionized Water to the plate and vortex strongly before use.
- Add Deionized Water to lyophilized Proteinase K, Lysozyme and RNAse A with the instructions as listed on the tube.

Protocol:
1. Add 200 uL GD1 to prepared sample (Fungi cell pellet)
   - Add 5 uL of Proteinase K (20 mg/mL) and 2 uL of RNase A (4 mg/mL)
   - Vortex for 1 minute
   - Incubate the mixture for 10 minutes at 56°C

2. Add 200 uL GD2 to mixture from Step 1
   - Mix well by vortexing for 10 seconds.
   - Centrifuge at 13,000 rpm for 5 minutes.
   - Transfer supernatant into a new micro tube (not provided)
   - Add 200 uL GB and mix well by inverting 10 to 20 times.

3. Transfer solution from Step 2 into the spin column with 2 mL collection tube that is provided
   - Centrifuge at 7,000 rpm for 1 min
   - Discard flow-through, place the spin column into a new 2 mL collection tube provided.

4. Add 500 uL WB (80% Ethanol) to the spin column
   - Centrifuge at 13,000 rpm for 30 sec
   - Discard flow-through, place back the spin column into 2 mL collection tube
   - Repeat Step 4 washing again

5. Centrifuge again at 13,000 rpm for 2 mins to remove leftover residues

6. Place the spin column in a new 1.5 mL micro tube (not provided)
   - Discard the used 2 mL collection tube

7. Add 50 uL to 100 uL of DNA Hydration Solution
   - Incubate the mixture for 1 mins at RT
   - Centrifuge at 13,000 rpm for 2 mins
   - Discard the spin column
   - Check the concentration and purity of DNA by Electrophoresis or appropriate method
   - Store at 4°C or -20°C

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