



"WE MAKE NGS BETTER"

HighPrep Blood & Tissue DNA Kit - DX

Isolation of gDNA from a Variety of Sample Types

Catalog Nos. HPBTS-D5E, HPBTS-D96E, HPBTS-D96x4E
Manual Revision 0
WI-72-60

- Genomic DNA isolation from 20-250 µL of blood, lysate of tissues, cultured cells, and buccal swabs
- Magnetic bead-based chemistry

Instructions For Use

Contents

Product Description and Process..... 1

Kit Contents, Shipping and Storage, and Safety Info 1

Preparation of Reagents and Amounts of Starting Material 2

Protocol: Saliva or Whole Blood 20-100 µL sample volume (96 well format) 3

Protocol: Saliva or Whole Blood 100-250 µL sample volume (96 well format) .. 5

Protocol: Tissues ≤ 10 mg sample volume (96 well format) 7


Protocol: Cultured Cells (96 well format) 9

Protocol: Buccal Swabs (96 well format) 11

Troubleshooting Guide 13

Ordering and Related Product Information 14

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For *in vitro* diagnostic procedures.

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Product Description

The HighPrep Blood & Tissue DNA Kit - DX is a high quality genomic DNA purification kit for a variety of sample sources including: fresh or frozen whole blood, buffy coat containing anticoagulants such as Citrate, EDTA and Heparin, DNA from saliva samples, fresh or frozen tissues, and cells. Up to 96 samples can be processed in less than an hour. It utilizes our proprietary magnetic beads chemistry and requires no phenol extraction, chloroform extraction, or alcohol precipitation. The kit is suited for high throughput automation and the purified high quality genomic DNA is suitable for direct use in most downstream applications such as amplification and enzymatic reactions.

This product is intended to be used by qualified and trained laboratory professionals only.

Process

The HighPrep Blood & Tissue DNA Kit - DX uses a simple 3 step procedure: Lyse+Bind-Wash-Elute. Samples are lysed and DNA binds to the MAG-S1 Particles in one step. Utilizing a magnetic separation device, the bound genomic DNA is separated from the solution and washed. The final step is elution of high quality genomic DNA from the magnetic beads.

Kit Contents and Storage

HighPrep Blood & Tissue DNA Kit - DX Catalog No.*	HPBTS-D5E	HPBTS-D96E	HPBTS-D96x4E	Storage
Number of Preps	5	96	384	
AS Buffer	2 mL	33 mL	125 mL	15-25°C
TS Buffer	2.5 mL	40 mL	160 mL	15-25°C
HSW Buffer ¹	1.6 mL	22 mL	88 mL	15-25°C
MB Elution Buffer	1 mL	40 mL	120 mL	15-25°C
Pro K Solution ²	125 µL	2.5 mL	10 mL	2-8°C
MAG-S1 Particles ³	55 µL	1.1 mL	4.4 mL	2-8°C

¹Ethanol must be added prior to use. See preparation of reagents section.

²Once opened, reagents are usable until the expiration date on the product label. Be sure to close the lid firmly before storing reagents for later use.

Shipping and Storage

- ²Pro K Solution comes in a ready to use solution. Ships at room temperature. Store at 2-8°C.
- ³MAG-S1 Particles ship at room temperature. Store at 2-8°C.

Safety Information

Any consumables, including plates, tubes, etc., used to process samples with infectious or microbial hazards should be disposed of in an appropriate biohazard waste bin. When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate safety data sheets (SDSs). The SDS can be downloaded from the "Product Documents" tab when viewing this product at www.magbiogenomics.com.

Preparation of Reagents

Prepare the following components for each kit before use.

Catalog No.	Component	Add 100% Ethanol*	Storage
HPBTS-D5E	HSW Buffer	1.46 mL	Room Temp 15-25°C

Catalog No.	Component	Add 100% Ethanol*	Storage
HPBTS-D96E	HSW Buffer	28 mL	Room Temp 15-25°C

Catalog No.	Component	Add 100% Ethanol*	Storage
HPBTS-D96x4E	HSW Buffer	112 mL	Room Temp 15-25°C

*Ensure bottle/tube lid is closed tightly when preparing and storing reagents.

Amounts of Starting Material

Use the amounts of starting material indicated in the following table.

Blood Sample	Amount
Blood	20-250 µL
Buffy coat	20-250 µL
Saliva	20-250 µL

Tissue Sample	Amount
Most tissue samples	10 mg
Spleen	5-6 mg

Protocol: Saliva or Whole Blood 20-100 μ L sample volume (96 well format)

Equipment and Reagents to Be Supplied by the User

- 500 μ L 96-well round bottom plate or desired elution plate
- 1.2 mL deep-well plate
- 96 magnetic separation device for 1.2 mL deep well plate
- Sealing film for storage
- 70% Ethanol
- 100% Ethanol
- Optional: Phosphate-buffered saline (PBS) or nuclease-free water
- Optional: RNase A (10 mg/mL)

Things to do Before Starting


- Equilibrate samples to room temperature
- Ensure HSW Buffer is prepared according to the instructions on page 2
- AS Buffer and TS Buffer may show precipitates during storage. If precipitates are present, heat bottle to 37°C to dissolve the precipitates before use

Protocol

 Bring the **MAG-S1 Particles** to room temperature for at least 30 min before use.

1. Add 20-100 μ L of the sample to a 1.2 mL deep-well plate. Bring the sample volume up to 200 μ L with PBS or included **MB Elution Buffer**.
2. Add 20 μ L of **Pro K Solution** to the sample and pipette mix 20 times or vortex for 15 sec.
3. Add 200 μ L of **AS Buffer** to the sample and pipette mix 20 times.
4. Incubate the sample plate at 65°C for 30 min. Mix by inverting the plate once every 10 min during incubation.
5. Bring the sample plate to room temperature.

Optional: RNA in the whole blood will be copurified. If the RNA will interfere with your downstream application, remove the RNA by adding 5 μ L of RNase A. Pipette mix 20 times or vortex for 15 sec.

6. Add 300 μ L of 100% Ethanol and 10 μ L of **MAG-S1 Particles** to the sample, and pipette mix 20 times.
7.  *Shake well to resuspend the **MAG-S1 Particles** before use.*
8. Incubate the sample plate at room temperature for 5 min.
9. Place the sample processing plate containing the samples on the magnetic separation device for 5 min to magnetize the **MAG-S1 Particles**.
10. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.

 *Do not disturb the attracted beads while aspirating the supernatant.*

10. With the plate off the magnetic separation device, add 400 μ L of **HSW Buffer** to the sample and mix by pipetting 25 times or vortex for 1 min to resuspend the **MAG-S1 Particles**.
*⚠ Complete resuspension of the **MAG-S1 Particles** is crucial for obtaining high purity DNA.*
11. Place the sample plate back on the magnetic separation device and wait for 5 min or until the magnetic beads clear from the solution.
12. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.
⚠ Do not disturb the attracted beads while aspirating the supernatant.
13. Remove the plate from the magnetic separation device, add 400 μ L of 70% Ethanol to the sample, and mix by pipetting 25 times or vortex for 1 min to resuspend the **MAG-S1 Particles**.
14. Incubate at room temperature for 1 min.
15. Place the sample processing plate containing the sample on the magnetic separation device for 5 min to magnetize the **MAG-S1 Particles**.
16. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.
17. Repeat steps 13-16 for a second Ethanol wash.
18. Dry the beads by incubating for 10 min at room temperature with the plate still on the magnetic separation device.
⚠ Do not overdry the beads.
19. Remove the plate from the magnetic separation device. Add 100-200 μ L of **MB Elution Buffer** or nuclease-free water to the sample and mix 50 times or vortex for 2 min to completely resuspend the **MAG-S1 Particles**.
*⚠ Complete resuspension of the **MAG-S1 Particles** is crucial for obtaining better yield.*
20. Incubate at room temperature for 10 min.
21. Place the sample plate back on the magnetic separation device and wait for 5 min or until the magnetic beads clear from the solution.
22. Transfer the eluate (cleared supernatant containing the DNA) to a microplate for storage. Store the DNA at -20°C .

Protocol: Saliva or Whole Blood 100-250 μ L sample volume (96 well format)


Equipment and Reagents to Be Supplied by the User

- 500 μ L 96-well round bottom plate or desired elution plate
- 1.2 mL deep-well plate
- 96 magnetic separation device for 1.2 mL deep well plate
- Sealing film for storage
- 70% Ethanol
- 100% Ethanol
- Optional: Phosphate-buffered saline (PBS) or nuclease-free water
- Optional: RNase A (10 mg/mL)

Things to do Before Starting

- Equilibrate samples to room temperature
- Ensure HSW Buffer is prepared according to the instructions on page 2
- AS Buffer and TS Buffer may show precipitates during storage. If precipitates are present, heat bottle to 37°C to dissolve the precipitates before use

Protocol

 Bring the **MAG-S1 Particles** to room temperature for at least 30 min before use.

1. Add 100-250 μ L of the sample to a 1.2 mL deep-well plate. Bring the sample volume up to 300 μ L with PBS or with included **MB Elution Buffer**.
2. Add 20 μ L of **Pro K Solution** to the sample and pipette mix 20 times or vortex for 15 sec.
3. Add 300 μ L of **AS Buffer** to the sample and pipette mix 20 times.
4. Incubate the sample plate at 65°C for 30 min. Mix by inverting the plate once every 10 min during incubation.
5. Bring the sample plate to room temperature.

Optional: RNA in the whole blood will be copurified. If the RNA will interfere with your downstream application, remove the RNA by adding 5 μ L of RNase A. Pipette mix 20 times or vortex for 15 sec.

6. Add 430 μ L of 100% Ethanol and 10 μ L of **MAG-S1 Particles** to the sample, and pipette mix 20 times.

 *Shake well to resuspend the **MAG-S1 Particles** before use.*

7. Incubate the sample plate at room temperature for 5 min.
8. Place the sample processing plate containing the sample on the magnetic separation device for 5 min to magnetize the **MAG-S1 Particles**.
9. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.

 *Do not disturb the attracted beads while aspirating the supernatant.*

10. With the plate off the magnetic separation device, add 400 μ L of **HSW Buffer** to the sample and mix by pipetting 25 times or vortex for 1 min to resuspend the **MAG-S1 Particles**.
*⚠ Complete resuspension of the **MAG-S1 Particles** is crucial for obtaining high purity DNA.*
11. Place the sample plate back on the magnetic separation device and wait for 5 min or until the magnetic beads clear from the solution.
12. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.
⚠ Do not disturb the attracted beads while aspirating the supernatant.
13. Remove the plate from the magnetic separation device, add 400 μ L of 70% Ethanol to the sample, and mix by pipetting 20 times or vortex for 1 min to resuspend the **MAG-S1 Particles**.
14. Incubate at room temperature for 1 min.
15. Place the sample processing plate containing the sample on the magnetic separation device for 5 min to magnetize the **MAG-S1 Particles**.
16. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.
17. Repeat steps 13-16 for a second Ethanol wash.
18. Dry the beads by incubating for 10 min at room temperature with the plate still on the magnetic separation device.
⚠ Do not overdry the beads.
19. Remove the plate from the magnetic separation device. Add 100-200 μ L of **MB Elution Buffer** or nuclease-free water to the sample and mix 50 times or vortex for 2 min to completely resuspend the **MAG-S1 Particles**.
*⚠ Complete resuspension of the **MAG-S1 Particles** is crucial for obtaining better yield.*
20. Incubate at room temperature for 10 min.
21. Place the sample plate back on the magnetic separation device and wait for 5 min or until the magnetic beads clear from the solution.
22. Transfer the eluate (cleared supernatant containing the DNA) to a microplate for storage. Store the DNA at -20°C .

Protocol: Tissues \leq 10 mg sample volume (96 well format)

Equipment and Reagents to Be Supplied by the User

- 96 well round-bottom deep well plates with a capacity of 1 mL per well
- Magnetic separation device compatible with 96-well plate
- Centrifuge with swing bucket rotor capable of 4,000 x g
- Shaking water bath
- Vortex
- 70% Ethanol
- 100% Ethanol
- Optional: RNase A (10 mg/mL)

Things to do Before Starting

- Ensure HSW Buffer is prepared according to the instructions on page 2 and is at room temperature
- Warm MB Elution Buffer to 70°C
- Set shaking water bath to 55°C
- AS Buffer and TS Buffer may show precipitates during storage. If precipitates are present, heat the bottle to 37°C to dissolve the precipitates before use

Protocol

 Bring the **MAG-S1 Particles** to room temperature for at least 30 min before use.

1. Place up to 10 mg of tissue into a well of a 96 deep-well plate. Add 250 μ L of **TS Buffer**.
Note: Cutting/mincing the tissue into smaller pieces can speed up the lysis process.
Optional: To improve lysis and reduce incubation time, pulverize the sample to fine powder in liquid nitrogen.

For spleen tissue, use 5-6 mg. This will reduce the thickness of the gDNA extracted solution, allow a more efficient wash, and ultimately a better quality extracted DNA.

2. Add 20 μ L of **Pro K Solution** to each sample well. Seal the plate and vortex to mix well and incubate at 55°C in a shaking water bath overnight. Overnight lysis is recommended for optimal yield. Alternatively, lysis can be performed in 2-4 hours depending on the amount and tissue type. If a shaking water bath is not available, vortex the plate every 20-30 min.
3. Quickly spin the plate for 20 sec to collect liquid.
For tissue samples containing material that cannot be digested during the lysis step, centrifuge the plate at maximum speed for 5 min to pellet the undigested materials. Transfer the clear lysate on top to a new processing plate.
4. Add 200 μ L of **AS Buffer** to the sample, pipette mix 20 times or vortex for 15 sec, and incubate at 70°C for 10 min.

Optional: RNA in the tissue will be copurified. If the RNA will interfere with your downstream application, remove the RNA by adding 5 μ L of RNase A. Pipette mix 20 times or vortex for 15 sec.

5. Bring the sample plate to room temperature, add 290 μL of 100% Ethanol and 10 μL of **MAG-S1 Particles** to the sample, and pipette mix 25 times. Incubate at room temperature for 5 min.
*⚠ Shake well to resuspend the **MAG-S1 Particles** before use.*
6. Place the sample plate on the magnetic separation device to magnetize the **MAG-S1 Particles** and wait for 3 min or until the beads clear from the solution.
7. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.
⚠ Do not disturb the attracted beads while aspirating the supernatant.
8. Remove the plate from the magnetic separation device. Add 400 μL of **HSW Buffer** to the sample and pipette mix 25 times or vortex for 30 sec to resuspend the **MAG-S1 Particles**.
*⚠ Complete resuspension of the **MAG-S1 Particles** is crucial for obtaining high purity DNA.*
9. Place the sample plate back on the magnetic separation device and wait for 5 min or until the magnetic beads clear from the solution.
10. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.
⚠ Do not disturb the attracted beads while aspirating the supernatant.
11. Remove the sample plate from the magnetic separation device. Add 400 μL of 70% Ethanol to the sample and pipette mix 25 times or vortex for 1 min to resuspend the **MAG-S1 Particles**. Incubate at room temperature for 3 min.
12. Place the sample plate back on the magnetic separation device and wait for 3 min or until the magnetic beads clear from the solution.
13. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.
⚠ Do not disturb the attracted beads while aspirating the supernatant.
14. Repeat steps 11-13 for a second 70% Ethanol wash.
15. Dry the beads by incubating for 10 min at room temperature with the plate still on the magnetic separation device.
⚠ Do not overdry the beads.
16. Remove the plate from the magnetic separation device. Add 50-200 μL of **MB Elution Buffer** or nuclease-free water to the sample and pipette mix 50 times or vortex for 2 min to completely resuspend the **MAG-S1 Particles**.
*⚠ Complete resuspension of the **MAG-S1 Particles** is crucial for obtaining better yield.*
17. Incubate at room temperature for 10 min.
⚠ Incubation at 70°C can increase the yield.
18. Place the sample plate back on the magnetic separation device and wait for 5 min or until the magnetic beads clear from the solution.
19. Transfer the eluate (cleared supernatant containing the DNA) to a microplate for storage. Store the DNA at -20°C.

Protocol: Cultured Cells (96 well format)

Equipment and Reagents to Be Supplied by the User

- 96 well round-bottom deep well plates with a capacity of 1 mL per well (ABgene AB-1127)
- Magnetic separation device compatible with 96-well plate
- Centrifuge with swing bucket rotor capable of 4,000 x g
- Shaking water bath
- Vortex
- Chilled PBS (4°C)
- 70% Ethanol
- 100% Ethanol
- Optional: RNase A (10 mg/mL)

Things to do Before Starting

- Ensure HSW Buffer is prepared according to the instructions on page 2 and is at room temperature.
- Warm MB Elution Buffer to 70°C.
- Set shaking water bath to 55°C.
- AS Buffer and TS Buffer may show precipitates during storage. If precipitates are present, heat the bottle to 37°C to dissolve the precipitates before use.

Protocol

 Bring the **MAG-S1 Particles** to room temperature for at least 30 min before use.

1. Prepare cultured cells suspension according to your starting sample method:
 - a. Frozen cell samples should be thawed before starting this protocol. Pellet cells by centrifugation. Wash the cells with cold PBS (4°C) and resuspend the cells in 180 µL of cold PBS. Proceed with step 2 of this protocol.
 - b. For cells grown in suspension, pellet 5×10^6 cells at 1,200 x g in a centrifuge tube. Discard the supernatant, wash the cells once with cold PBS (4°C), and resuspend cells in 180 µL of cold PBS. Proceed with step 2 of this protocol.
 - c. For cells grown in a monolayer, harvest the cells by either using a trypsin treatment or cell scraper. Wash cells twice in cold PBS (4°C) and resuspend the cells with 180 µL cold PBS. Proceed with step 2 of this protocol.
2. Add 20 µL of **Pro K Solution**. Vortex or pipette mix thoroughly and incubate at 55°C in a water bath for 10 min.
3. Transfer the samples to a new 96 deep-well plate.
4. Add 200 µL of **AS Buffer** to the sample, pipette mix 20 times or vortex for 15 sec, and incubate at 70°C for 10 min.

Optional: RNA in the cultured cells will be copurified. If the RNA will interfere with your downstream application, remove the RNA by adding 5 µL of RNase A. Pipette mix 20 times or vortex for 15 sec.

5. Bring the sample plate to room temperature, add 290 μL of 100% Ethanol and 10 μL of **MAG-S1 Particles** to the sample, and pipette mix 25 times. Incubate at room temperature for 5 min.
*⚠ Shake well to resuspend the **MAG-S1 Particles** before use.*
6. Place the sample plate on the magnetic separation device to magnetize the **MAG-S1 Particles** and wait for 3 min or until the beads clear from the solution.
7. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.
⚠ Do not disturb the attracted beads while aspirating the supernatant.
8. Remove the plate from the magnetic separation device. Add 400 μL of **HSW Buffer** to the sample and pipette mix 25 times or vortex for 30 sec to resuspend the **MAG-S1 Particles**.
*⚠ Complete resuspension of the **MAG-S1 Particles** is crucial for obtaining high purity DNA.*
9. Place the sample plate back on the magnetic separation device and wait for 5 min or until the magnetic beads clear from the solution.
10. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.
⚠ Do not disturb the attracted beads while aspirating the supernatant.
11. Remove the sample plate from the magnetic device. Add 400 μL of 70% Ethanol to the sample and pipette mix 25 times or vortex for 1 min to resuspend the **MAG-S1 Particles**. Incubate at room temperature for 3 min.
12. Place the sample plate back on the magnetic separation device and wait for 3 min or until the magnetic beads clear from the solution.
13. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.
⚠ Do not disturb the attracted beads while aspirating the supernatant.
14. Repeat steps 11-13 for a second 70% Ethanol wash.
15. Dry the beads by incubating for 10 min at room temperature with the plate still on the magnetic separation device.
⚠ Do not overdry the beads.
16. Remove the plate from the magnetic separation device. Add 50-200 μL of **MB Elution Buffer** or nuclease-free water to the sample and pipette mix 50 times or vortex for 2 min to completely resuspend the **MAG-S1 Particles**.
*⚠ Complete resuspension of the **MAG-S1 Particles** is crucial for obtaining better yield.*
17. Incubate at room temperature for 10 min.
⚠ Incubation at 70°C can increase the yield.
18. Place the sample plate back on the magnetic separation device and wait for 5 min or until the magnetic beads clear from the solution.
19. Transfer the eluate (cleared supernatant containing the DNA) to a microplate for storage. Store the DNA at -20°C.

Protocol: Buccal Swabs (96 well format)

Equipment and Reagents to Be Supplied by the User

- 96 well round-bottom deep well plates with a capacity of 1mL per well (ABgene AB-1127)
- Magnetic separation device compatible with a 96-well plate
- Centrifuge with swing bucket rotor capable of 4,000 x g
- Shaking water bath
- Vortex
- 70% Ethanol
- 100% Ethanol
- Optional: RNase A (10 mg/mL)


Things to do Before Starting

- Ensure HSW Buffer is prepared according to the instructions on page 2 and is at room temperature.
- Warm MB Elution Buffer to 70°C.
- Set shaking water bath to 55°C.
- AS Buffer and TS Buffer may show precipitates during storage. If precipitates are present, heat the bottle to 37°C to dissolve the precipitates before use.

Protocol


 Bring the **MAG-S1 Particles** to room temperature for at least 30 min before use.

1. Cut off the buccal brush or swab head and place into a well of a 96 well deep plate.
2. Add 400 µL of **TS Buffer** to each sample well.
3. Add 25 µL of **Pro K Solution**. Vortex or pipette mix thoroughly and incubate at 55°C in a water bath for 45 min. Mix by inverting the 96 well deep plate once during incubation.
4. Centrifuge the plate at 3,000 x g for 10 min.
5. Transfer 200 µL of lysate to a new 96 well deep plate.

 *Do not transfer the swabs or other debris.*
6. Add 200 µL of **AS Buffer** to the sample, pipette mix 20 times or vortex for 15 sec, and incubate at 70°C for 10 min.

Optional: RNA in the buccal cells will be copurified. If the RNA will interfere with your downstream application, remove the RNA by adding 5 µL of RNase A. Pipette mix 20 times or vortex for 15 sec.

7. Bring the sample plate to room temperature, add 290 µL of 100% Ethanol and 10 µL of **MAG-S1 Particles** to the sample, and pipette mix 25 times. Incubate at room temperature for 5 min.

 *Shake well to resuspend the **MAG-S1 Particles** before use.*
8. Place the sample plate on the magnetic separation device to magnetize the **MAG-S1 Particles** and wait for 3 min or until the beads clear from the solution.

9. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.
⚠ Do not disturb the attracted beads while aspirating the supernatant.
10. Remove the plate from the magnetic separation device. Add 400 µL of **HSW Buffer** to the sample and pipette mix 25 times or vortex for 30 sec to resuspend the **MAG-S1 Particles**.
*⚠ Complete resuspension of the **MAG-S1 Particles** is crucial for obtaining high purity DNA.*
11. Place the sample plate back on the magnetic separation device and wait for 5 min or until the magnetic beads clear from the solution.
12. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.
⚠ Do not disturb the attracted beads while aspirating the supernatant.
13. Remove the sample plate from the magnetic separation device. Add 400 µL of 70% Ethanol to the sample and pipette mix 25 times or vortex for 1 min to resuspend the **MAG-S1 Particles**. Incubate at room temperature for 3 min.
14. Place the sample plate back on the magnetic separation device and wait for 3 min or until the magnetic beads clear from the solution.
15. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.
⚠ Do not disturb the attracted beads while aspirating the supernatant.
16. Repeat steps 13-15 for a second 70% Ethanol wash.
17. Dry the beads by incubating for 10 min at room temperature with the plate still on the magnetic separation device.
⚠ Do not overdry the beads.
18. Remove the plate from the magnetic separation device. Add 50-200 µL of **MB Elution Buffer** or nuclease-free water to the sample and pipette mix 50 times or vortex for 2 min to completely resuspend the **MAG-S1 Particles**.
*⚠ Complete resuspension of the **MAG-S1 Particles** is crucial for obtaining better yield.*
19. Incubate at room temperature for 10 min.
⚠ Incubation at 70°C can increase the yield.
20. Place the sample plate back on the magnetic separation device and wait for 5 min or until the magnetic beads clear from the solution.
21. Transfer the eluate (cleared supernatant containing the DNA) to a microplate for storage. Store the DNA at -20°C.

Troubleshooting Guide

Please use this guide to troubleshoot any problems that may arise. For further assistance, please contact technical support via:

Phone: US/Canada, +1 301-302-0144. Europe, +49 7250 33 13 403

Email: US/Canada, support@magbiogenomics.com. Europe, info.europe@magbiogenomics.com

Symptoms	Possible Causes	Comments
Low DNA yield	Frozen samples not mixed properly after thawing	Thaw the frozen samples at room temperature and gently mix the samples by inverting
	Blood is too old	Best yields are obtained from fresh blood
	Low levels of leukocytes	Low white blood cell count will result in reduced yield
	Incomplete resuspension of MAG-S1 Particles	Resuspend MAG-S1 Particles by vortexing vigorously before use
	Loss of MAG-S1 Particles during operation	Avoid disturbing the MAG-S1 Particles during aspiration of supernatant
	DNA remains bound to MAG-S1 Particles	Increase elution volume and incubate for 15 min. Pipet up and down 50 to 100 times
	Ethanol is not added into HSW Buffer	Add absolute 100% Ethanol to HSW Buffer (see page 2 for instructions)
MAG-S1 Particles do not completely clear from the solution	Magnetizing time too short	Increase collection time on the magnet
Eluted DNA contains gelatinous material	Blood is too old	Remove the gelatinous material by centrifugation. Recommend using fresh blood
		Use 8 mM NaOH as elution buffer
Problems in downstream applications	Insufficient DNA/RNA in starting material	Use more starting material
	Ethanol carry-over	Dry the MAG-S1 Particles completely before elution

Ordering Information

HighPrep Blood & Tissue DNA Kit - DX

Catalog No.	Product	Description	Preps
HPBTS-D96E	HighPrep Blood & Tissue DNA Kit - DX (96 preps)	Magnetic bead-based kit for Genomic DNA isolation from 20-250 μ L of blood, lysate of tissues, cultured cells, or buccal swabs.	96
HPBTS-D96x4E	HighPrep Blood & Tissue DNA Kit - DX (384 preps)	Magnetic bead-based kit for Genomic DNA isolation from 20-250 μ L of blood, lysate of tissues, cultured cells, or buccal swabs.	384

Related Products

HighPrep PCR - DX

Catalog No.	Product
AC-60005E	HighPrep PCR - DX (5 mL)
AC-60050E	HighPrep PCR - DX (50 mL)
AC-60250E	HighPrep PCR - DX (250 mL)
AC-60500E	HighPrep PCR - DX (500 mL)

Magnetic Separation Devices

Catalog No.	Product
MYMAG-96	Handheld Magnetic Separation Device (96 well microplate format)
MYMAG-96X	Magnetic Separation Device (96 well ring format)
MBMS-12	MagStrip Magnet Stand (1.5 mL x 12)
MBMS-31550	15 mL and 50 mL Magnetic Stand Combo (3 x 15 mL and 3 x 50 mL)

