AXYGEN
BIOSCIENCES

# AxyPrep Mag Tissue-Blood gDNA

(Kit for Isolation of Genomic DNA from Animal Tissues, Cultured Cells, Buccal Swabs, and Blood)

## Product Description

The AxyPrep™ Mag Tissue-Blood genomic DNA (gDNA) Kit utilizes a magnetic bead-based technology to isolate genomic DNA from fresh or frozen rodent tail tissues. DNA from other tissue types may be extracted with this protocol, but optimization may be required. The protocol comprises of three easy steps to effectively remove cellular contaminants from gDNA.

The first step involves lysing the tissue sample with a lysis buffer containing DTT and Proteinase K. Next, the DNA is bound to the paramagnetic beads and separated from the solution. Cellular contaminants, such as proteins and debris are then washed away and the DNA is easily eluted off the beads to be used in downstream applications.

The AxyPrep™ Mag Tissue-Blood genomic DNA is adaptable to various commercially available automation platforms and may be performed in both 96-well and single tube formats

| **Application Areas:** |
|---|
| • Restriction enzyme digestion |
| • DNA sequencing |
| • Genotyping |
| • PCR amplification |

## Process

1. Lyse up specimen in Lysis Buffer, and Proteinase K.
2. Bind the gDNA to the paramagnetic beads.
3. Separate the beads from the solution using the IMAG.
4. Wash the magnetic beads containing gDNA.

5. Elute the DNA off of the magnetic particles.

6. Transfer to a new plate and store at -20°C until ready for use.

***AxyPrep Mag Tissue gDNA*** isolation can be performed in a tube and 96-well formats.

| AxyPrep Mag Tissue gDNA Products | P/N | Number of reactions |
|---|---|---|
| **AxyPrep Mag Tissue-Blood gDNA-Small** | MAG-T-GDNA-S | 96 |
| **AxyPrep Mag Tissue-Blood gDNA-Medium** | MAG-T-GDNA-M | 384 |
| **AxyPrep Mag Tissue-Blood gDNA-Large** | MAG-T-GDNA-L | 3840 |

## Kit Contents and Storage

| Cat. No. | MAG-T-GDNA-S | MAG-T-GDNA-M | MAG-T-GDNA-L | Storage Temperature |
|---|---|---|---|---|
| **Kit Size** | **96 preps** | **384 preps** | **3840 preps** | |
| **TB1 Buffer** | **33 mL** | **125 mL** | **1250 mL** | **15-25°C** |
| **TB2 Buffer** | **30 mL** | **120 mL** | **1200 mL** | **15-25°C** |
| **Wash Buffer** | **22 mL** | **88 mL** | **880 mL** | **15-25°C** |
| **Pro K solution** | **1.1 mL** | **10 mL** | **100 mL** | **15-25°C** |
| **FB particles** | **1.1 mL** | **4.4 mL** | **44 mL** | **2-8°C** |
| **Elution Buffer** | **30 mL** | **120 mL** | **1200 mL** | **15-25°C** |
| **Protocol Manual** | **1** | **1** | **1** | **15-25°C** |

## Preparation of Reagents

| Catalog No. | Component | Add 100% Ethanol | Storage |
|---|---|---|---|
| MAG-T-GDNA | Wash Buffer | 28 mL | 15-25°C |

## Stability

All components are stable for 12 months when stored accordingly.
Pro K Solution comes in a ready to use solution. Component is stable for 1 year when stored at 15-25°C.
For storage longer than 1 year, store at 2-8°C is recommended.

# Protocol: Total DNA from Animal Tissues

## Equipment and Reagents to Be Supplied by User

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate material safety data sheets (MSDSs)from each product supplier.

- 96 well round-bottom deep well plates with a capacity of 1 mL per well. (ABgene AB-1127)Isopropanol
- Magnetic separation device compatible with 96-well plate
- Centrifuge with swing bucket rotor capable of 4,000 x g
- Shaking water bath
- Vortexer
- 70% ethanol
- 100% ethanol
- RNase A (optional)

## Things to do before starting

- Ensure Wash Buffer is prepared according to the instructions on page 2 and are at room temperature.
- Warm up Elution Buff er ( 50-250µl per sample depending on elution volume) to 70°C
- Set shaking water bath to 55°C
- TB1 Buffer and TB2 Buffer may show precipitates during storage. If precipitate is present, heat bottle to 37°C to dissolve the precipitate before use.

## Protocol

**1. Place up to 10 mg of tissue into a well of a 96 deep-well plate. Add 250 µl TB2 Buffer.**
Note: Cutting/mincing the tissue into smaller pieces can speed up the lysis process.
Optional. To improve lysis and reduce incubation time, pulverize sample to fi ne powder in liquid nitrogen.

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

**2. Add 20 µl 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 perform 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 plate for 20 sec to collect liquid.**

For tissues 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. Optional: Add 5 µl RNase A to each sample well. Pipette mix for 20 times or vortex for 15 sec.**

**5. Add 200 µl TB1 Buffer to the sample and pipette mix for 20 times or vortex for 15 sec and incubate at 70°C for 10 min.**

**6. Bring sample plate to room temperature and add 290µl 100 % ethanol and 10 µl FB Particles to the sample, and pipette mix for 20-25 times. Incubate at room temperature for 5 min.**

**7. Place the sample plate on the magnetic separation device to magnetize the FB Particles and wait 2-3 min or until the beads clear from the solution.**

**8. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.**

**9. Remove the plate from the magnetic separation device. Add 400 µl Wash Buffer to the sample and pipette mix 20-25 times or vortex for 30 sec to resuspend the FB Particles.**

**10. Place the sample plate back on the magnetic separation device and wait 2-3 min or until the magnetic beads clear from solution.**

**11. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.**

**12. Remove the sample plate from the magnetic device. Add 400 µl of 70% Ethanol to the sample and pipette mix 20-25 times or vortex for 1 min to resuspend the FB Particles. Incubate at room temperature for 3 min.**

**13. Place the sample plate back on the magnetic separation device and wait 2-3 min or until the magnetic beads clear from solution.**

**14. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.**

**15. Repeat steps 12-14 for a second 70% ethanol wash.**

**16. Dry the beads by incubating for 10 min at room temperature with the plate still on the magnetic separation device.**

**17. Remove the plate from the magnetic separation device. Add 50-200 µl Elution Buffer or nuclease-free water to the sample and pipette mix 50 times or vortex for 2 min to completely resuspend the FB Particles.**

**18. Incubate at room temperature for 10 min.** Incubation at 70°C can increase yield.

**19. Place the sample plate back on the magnetic separation device and wait 2-3 min or until the magnetic beads clear from solution.**

**20. Transfer the eluate (cleared supernatant containing the DNA) to a microplate for storage. Store DNA at -20°C.**

# Protocol: Total DNA from Animal Tissues

## Equipment and Reagents to Be Supplied by User

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate material safety data sheets (MSDSs)from each product supplier.

- 96 well round-bottom deep well plates with a capacity of 1 mL per well. (ABgene AB-1127) Isopropanol
- Magnetic separation device compatible with 96-well plate
- Centrifuge with swing bucket rotor capable of 4,000 x g
- Shaking water bath
- Vortexer
- 70% ethanol
- 100% ethanol
- RNase A (optional)

## Things to do before starting

- Ensure Wash Buffer is prepared according to the instructions on page 2 and are at room temperature.
- Warm up Elution Buffer ( 50-250µl per sample depending on elution volume) to 70°C
- Set shaking water bath to 55°C
- TB1 Buffer and TB2 Buffer may show precipitates during storage. If precipitate is present, heat bottle to 37°C to dissolve the precipitate before use

**1. Take 2-5 mm piece of mouse tail and mince into several pieces. Add 250 µl TB2 Buffer.**
Note: Cutting/mincing the tissue into smaller pieces can speed up the lysis process.

**Optional.** To improve lysis and reduce incubation time, pulverize sample to fi ne powder in liquid nitrogen.

**2. Add 20 µl Pro K Solution. Vortex to mix well and incubate at 55°C in a shaking water bath for overnight.** If a shaking water bath is not available, vortex the plate every 20-30 min.
Lysis time depends on the length of the tail snip and age of the mice. Biopsies should be from 2-4 week old mice. For older mice, overnight incubation may improve yields.

**3. 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 with a capacity of 500µl per well.**

**4. Optional:** RNA in the mouse tail will be copurified. If the RNA will interfere with your downsteam application, remove the RNA by adding 5 µl RNase A. Pipette mix for 20 times or vortex for 15 sec.

**5. Add 200 µl TB1 Buffer to the sample and pipette mix for 20 times or vortex for 15 sec and incubate at 70°C for 10 min.**

**6. Bring sample plate to room temperature and add 290µl 100% ethanol and 10 µl FB Particles to the sample, and pipette mix for 20-25 times. Incubate at room temperature for 5 min.**

**7. Place the sample plate on the magnetic separation device to magnetize the FB Particles and wait 2-3 min or until the beads clear from the solution.**

**8. 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.

**9. Remove the plate from the magnetic separation device. Add 400 µl Wash Buffer to the sample and pipette mix 20-25 times or vortex for 30 sec to resuspend the FB Particles.**

**10. Place the sample plate back on the magnetic separation device and wait 2-3 min or until the magnetic beads clear from solution.**

**11. 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.

**12. Remove the sample plate from the magnetic device. Add 400 µl of 70% Ethanol to the sample and pipette mix 20-25 times or vortex for 1 min to resuspend the FB Particles. Incubate at room temperature for 3 min.**

**13. Place the sample plate back on the magnetic separation device and wait 2-3 min or until the magnetic beads clear from solution.**

**14. 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.

**15. Repeat steps 12-14 for a second 70% ethanol wash.**

**16. Dry the beads by incubating for 10 min at room temperature with the plate still on the magnetic separation device.**

**17. Remove the plate from the magnetic separation device. Add 50-200 µl Elution Buffer or nuclease-free water to the sample and pipette mix 50 times or vortex for 2 min to completely resuspend the FB Particles.**

**18. Incubate at room temperature for 10 min.** Incubation at 70°C can increase yield.

**19. Place the sample plate back on the magnetic separation device and wait 2-3 min or until the magnetic beads clear from solution.**

**20. Transfer the eluate (cleared supernatant containing the DNA) to a microplate for storage. Store DNA at -20°C**

# Protocol: Total DNA from Cultured Cells

## Equipment and Reagents to Be Supplied by User

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate material safety data sheets (MSDSs)from each product supplier.

- 96 well round-bottom deep well plates with a capacity of 1 mL per well. (ABgene AB-1127)Isopropanol
- Magnetic separation device compatible with 96-well plate
- Centrifuge with swing bucket rotor capable of 4,000 x g
- Shaking water bath
- Vortexer
- 70% ethanol
- 100% ethanol
- RNase A (optional)

## Things to do before starting

- Ensure Wash Buffer is prepared according to the instructions on page 2 and are at room temperature.

- Warm up MB Elution Buff er ( 50-250µl per sample depending on elution volume) to 70°C
- Set shaking water bath to 55°C
- TB1 Buffer and TB2 Buffer may show precipitates during storage. If precipitate is present, heat bottle to 37°C to dissolve the precipitate before use.

**1. Prepare the cultured cell suspension according to your starting sample method:**

**2. Add 20 µl Pro K Solution. Vortex or pipette mix thoroughly and incubate at 55°C in a water bath for 10 min.**

**3. Transfer samples to a new 96-well deep well plate.**

**4. Add 200 µl AS Buff er to the sample and pipette mix for 20 times or vortex for 15 sec and incubate at 70°C for 10 min.**

**5. Bring sample plate to room temperature and add 290µl 100% ethanol and 10 µl FB Particles to the sample, and pipette mix for 20-25 times. Incubate at room temperature for 5 min.**

**6. Place the sample plate on the magnetic separation device to magnetize the FB Particles and wait 2-3 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 Wash Buffer to the sample and pipette mix 20-25 times or vortex for 30 sec to resuspend the FB Particles.**

**9. Place the sample plate back on the magnetic separation device and wait 2-3 min or until the magnetic beads clear from 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 20-25 times or vortex for 1 min to resuspend the FB Particles. Incubate at room temperature for 3 min.**

**12. Place the sample plate back on the magnetic separation device and wait 2-3 min or until the magnetic beads clear from 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.**

**16. Remove the plate from the magnetic separation device. Add 50-200 µl Elution Buffer or nuclease-free water to the sample and pipette mix 50 times or vortex for 2 min to completely resuspend the FB Particles.**

**17. Incubate at room temperature for 10 min.** Incubation at 70°C can increase yield.

**18. Place the sample plate back on the magnetic separation device and wait 2-3 min or until the magnetic beads clear from solution.**

**19. Transfer the eluate (cleared supernatant containing the DNA) to a microplate for storage. Store DNA at -20°C**

# Protocol: Total DNA from Buccal Swabs

## Equipment and Reagents to Be Supplied by User

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate material safety data sheets (MSDSs)from each product supplier.

- 96 well round-bottom deep well plates with a capacity of 1 mL per well. (ABgene AB-1127)Isopropanol
- Magnetic separation device compatible with 96-well plate
- Centrifuge with swing bucket rotor capable of 4,000 x g
- Shaking water bath
- Vortexer
- 70% ethanol
- 100% ethanol
- RNase A (optional)

## Things to do before starting

- Ensure Wash Buffer is prepared according to the instructions on page 2 and are at room temperature.
- Warm up Elution Buff er ( 50-250µl per sample depending on elution volume) to 70°C
- Set shaking water bath to 55°C
- TB1 Buffer and TB2 Buffer may show precipitates during storage. If precipitate is present, heat bottle to 37°C to dissolve the precipitate before use.

**1. Cut off the buccal brush or swab head and place into a well of a 96 well deep well plate.**

**2. Add 400 µl TB2 Buffer to each sample well.**

**3. Add 25 µl Pro K Solution. Vortex or pipette mix thoroughly and incubate at 55°C in a water bath for 45 min.**

**4. Centrifuge the plate at 3,000 x g for 10 min.**

**5. Transfer 200 µl lysate to a new 96 well deep well plate.** Do not transfer the swabs or other debris.

**6. Add 200 µl TB1 Buffer to the sample and pipette mix for 20 times or vortex for 15 sec and incubate at 70°C for 10 min.**

**7. Bring sample plate to room temperature and add 290µl 100% ethanol and 10 µl FB Particles to the sample, and pipette mix for 20-25 times. Incubate at room temperature for 5 min.**

**8. Place the sample plate on the magnetic separation device to magnetize the FB Particles and wait 2-3 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 Wash Buffer to the sample and pipette mix 20-25 times or vortex for 30 sec to resuspend the FB Particles.**

**11. Place the sample plate back on the magnetic separation device and wait 2-3 min or until the magnetic beads clear from 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 device. Add 400 µl of 70% Ethanol to the sample and pipette mix 20-25 times or vortex for 1 min to resuspend the FB Particles. Incubate at room temperature for 3 min.**

**14. Place the sample plate back on the magnetic separation device and wait 2-3 min or until the magnetic beads clear from 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.**

**18. Remove the plate from the magnetic separation device. Add 50-200 µl Elution Buffer or nuclease-free water to the sample and pipette mix 50 times or vortex for 2 min to completely resuspend the FB Particles.**

**19. Incubate at room temperature for 10 min.** Incubation at 70°C can increase yield.

**20. Place the sample plate back on the magnetic separation device and wait 2-3 min or until the magnetic beads clear from solution.**

**21. Transfer the eluate (cleared supernatant containing the DNA) to a microplate for storage. Store DNA at -20°C.**

# Protocol: Genomic DNA from Blood 1-100 µL

## Equipment and Reagents to Be Supplied by User

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate material safety data sheets (MSDSs)from each product supplier.

- 500 µL 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 fi lm for storage
- 70% ethanol
- 100% ethanol
- Optional phosphate-buffered saline (PBS) or nuclease-free water maybe required
- Optional RNase A (10 mg/mL)

## Things to do before starting

- Equilibrate samples to room temperature.
- Ensure Wash Buffer is prepared according to the instructions on page 2 and are at room temperature.
- TB1 Buffer may show precipitates during storage. If precipitates are present, heat bottle to 37°C to dissolve the precipitates before use.

**1. Add 1-100 µL sample to well of 1.2 mL deep-well plate. Bring sample volume up to 200 µL with PBS or with included Elution Buffer.**

**2. Add 20µL Pro K Solution to the sample and mix by pipetting 20 times up and down or by vortexing for 15 s.**

**3. Optional: Add 5 µL RNase A to the sample and mix by pipetting 20 times up and down or by vortexing for 15 s.**

**4. Add 200 µL TB1 Buffer to the sample and pipette mix 20 times.**

**5. Incubate sample plate at 65°C for 30 min. Mix the sample once during the incubation.**

**6. Bring sample plate to room temperature.**

**7. Add 300 µL 100 % ethanol and 10 µL FB Particles to the sample, and pipette mix 20 times.**

**8. Incubate the sample plate at room temperature for 5 min.**

**9. Transfer 360µL of the sample to a new 96 well processing microplate with a capacity of at least 500 µL.**

**10. Place the sample processing plate containing the sample on the magnetic separation device for 5 min to magnetize the FB Particles.**

**11. 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.

**12. Remove the sample processing plate from the magnetic separation device. Repeats step 9 to 11 until all the sample from the 1.5mL sample plate is transferred to the new sample processing plate.**

**13. With the plate off the magnetic separation device, add 400 µL Wash Buffer to the sample and mix by pipetting 20-25 times or vortex for 1 min to resuspend the FB Particles.**

**14. Place the sample plate back on the magnetic separation device and wait 1-2 min or until the magnetic beads clear from 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. Remove the plate off the magnetic separation device, add 400 µL 70% ethanol to the sample and mix by pipetting 20 times or vortex for 1 min to resuspend the FB Particles.**

**17. Incubate at room temperature for 1 min.**

**18. Place the sample processing plate containing the sample on the magnetic separation device for 5 min to magnetize the FB Particles.**

**19. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.**

**20. Repeats steps 16 to 18 for a second ethanol wash.**

**21. Dry the beads by incubating for 10 min at room temperature with the plate still on the magnetic separation device.**

**22. Remove the plate from the magnetic separation device. Add 100-200 µL Elution Buffer or nuclease-free water to the sample and mix 50 times or vortex for 2 min to completely resuspend the FB Particles.**

**23. Incubate at room temperature for 10 min.**

**24. Place the sample plate back on the magnetic separation device and wait 1-2 min or until the magnetic beads clear from solution.**

**25. Transfer the eluate (cleared supernatant containing the DNA) to a microplate for storage. Store DNA at -20°C.**

# Protocol: Genomic DNA from Blood 100-250 µL

## Equipment and Reagents to Be Supplied by User

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate material safety data sheets (MSDSs)from each product supplier.

- 500 µL 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 fi lm for storage
- 70% ethanol
- 100% ethanol
- Optional phosphate-buffered saline (PBS) or nuclease-free water maybe required
- Optional RNase A (10 mg/mL)

## Things to do before starting

- Equilibrate samples to room temperature.
- Ensure Wash Buffer is prepared according to the instructions on page 2 and are at room temperature.
- TB1 Buffer may show precipitates during storage. If precipitates are present, heat bottle to 37°C to dissolve the precipitates before use.

**1. Add 100-250 µL of sample to a well of 1.2 mL deep-well plate. Bring sample volume up to 300 µL with PBS or with included Elution Buffer.**

**2. Add 20µL Pro K Solution to the sample and mix by pipetting 20 times up and down or by vortexing for 15 s.**

**3. Optional: Add 5 µL RNase A to the sample and mix by pipetting 20 times up and down or by vortexing for 15 s.**

**4. Add 300 µL TB1 Buffer to the sample and pipette mix 20 times.**

**5. Incubate sample plate at 65°C for 30 min. Mix the sample once during the incubation.**

**6. Bring sample plate to room temperature.**

**7. Add 430 µL 100% ethanol and 10 µL FB Particles to the sample, and pipette mix 20 times.**
**8. Incubate the sample plate at room temperature for 5 min.**

**9. Transfer 360µL of the sample to a new 96 well processing microplate with a capacity of at least 500 µL.**

**10. Place the sample processing plate containing the sample on the magnetic separation device for 5 min to magnetize the FB Particles.**

**11. 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.

**12. Remove the sample processing plate from the magnetic separation device. Repeats step 9 to 11 until all the sample from the 1.5mL sample plate is transferred to the new sample processing plate.**

**13. With the plate off the magnetic separation device, add 400 µL Wash Buffer to the sample and mix by pipetting 20-25 times or vortex for 1 min to resuspend the FB Particles.**

**14. Place the sample plate back on the magnetic separation device and wait 1-2 min or until the magnetic beads clear from 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. Remove the plate off the magnetic separation device, add 400 µL 70% ethanol to the sample and mix by pipetting 20 times or vortex for 1 min to resuspend the FB Particles.**

**17. Incubate at room temperature for 1 min.**

**18. Place the sample processing plate containing the sample on the magnetic separation device for 5 min to magnetize the FB Particles.**

**19. With the plate on the magnetic separation device, remove and discard the supernatant by pipetting.**

**20. Repeats steps 16 to 18 for a second ethanol wash.**

**21. Dry the beads by incubating for 10 min at room temperature with the plate still on the magnetic separation device.**

**22. Remove the plate from the magnetic separation device. Add 100-200 µL Elution Buffer or nuclease-free water to the sample and mix 50 times or vortex for 2 min to completely resuspend the FB Particles.**

**23. Incubate at room temperature for 10 min.**

**24. Place the sample plate back on the magnetic separation device and wait 1-2 min or until the magnetic beads clear from solution.**

**25. Transfer the eluate (cleared supernatant containing the DNA) to a microplate for storage. Store DNA at -20°C.**