



BECKMAN
COULTER

FORMAPURE TOTAL

Be sure to read the full instructions for use before proceeding with this checklist.
Video links are provided throughout the protocol demonstrating best practices.
[FormaPure.com/IFU](https://www.beckmancoulter.com/FormaPure.com/IFU)

1 Start here

1. Sample Preparation

- a. Place **one to three 10 μm** FFPE tissue sections into a **1.5 mL** tube

2. Deparaffinization

- a. Add **450 μL** of mineral oil - **MO** - and immerse the tissue completely
- b. Incubate at **80°C** for **5 minutes**
- c. Vortex **two times** for **5 seconds**

 [FormaPure.com/oil](https://www.beckmancoulter.com/FormaPure.com/oil)

3. Tissue Digestion

- a. Add **200 μL** of Lysis buffer - **LBA**
- b. Centrifuge at **10,000 x g** for **15 seconds**
- c. Add **20 μL** of **Proteinase K** to the lower phase. Pipette mix **10 times**.
- d. Incubate at **60°C** for **120 minutes**

Start _____ End _____

Continued on reverse side

1 continued

The protocol splits at this point depending on which extractions you'd like to perform.

For RNA isolation only: Proceed to **“Card 4 - RNA Only isolation”**

For DNA isolation only: Proceed to **“Card 5 - DNA Only isolation”**

For Total isolation: Continue below

4. Lysate Splitting

- a. Centrifuge at **10,000 x g** for **5 minutes**
- b. Transfer **100 µL** of the Lysate (bottom layer) to a new tube or plate for RNA isolation. Avoid disturbing the upper phase (mineral oil) or any pellet that may be present.

The transferred 100 µL should proceed to:

“Card 2 - Total Isolation - RNA”

The remaining content should proceed to:


“Card 3 - Total Isolation - DNA”

Note: The RNA portion should be processed right away. The DNA portion can remain at **60°C** up to overnight.



2 Total isolation - RNA

5. First Bind

- a. Add **150 μ L** of Bind buffer - 
- b. Pipette mix **10 times**
- c. Incubate for **5 minutes**
- d. Separate on the magnet for **10 minutes**
- e. Aspirate and discard supernatant

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 [FormaPure.com/separate](https://www.beckmancoulter.com/formapure.com/separate)

 [FormaPure.com/supernatant](https://www.beckmancoulter.com/formapure.com/supernatant)


6. Ethanol Wash

- a. Remove samples from the magnet
- b. Add **375 μ L** of **80% ethanol**
- c. Pipette mix **20 times** to resuspend the beads
- d. Separate on the magnet for **3 minutes**
- e. Aspirate and discard supernatant
- f. Air dry on the magnet for **10 minutes**

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7. DNase I Treatment

- a. Add **80 μ L** of water
- b. Add **10 μ L** of **10x DNase I buffer** and **10 μ L** of **DNase I** and pipette mix **5 times**
- c. Incubate at **37°C** for **20 minutes**

Continued on reverse side

2 continued

8. Re-bind

- a. Add **150 μ L** of Re-bind buffer - 
- b. Pipette mix **10 times**
- c. Incubate for **5 minutes**
- d. Separate on the magnet for **10 minutes**
- e. Aspirate and discard supernatant

 [FormaPure.com/separator](https://www.formapure.com/separator)

 [FormaPure.com/supernatant](https://www.formapure.com/supernatant)

9. Ethanol Wash

- a. Remove samples from the magnet
- b. Add **375 μ L** of **80% ethanol**
- c. Pipette mix **20 times** to resuspend the beads
- d. Separate on the magnet for **3 minutes**
- e. Aspirate and discard supernatant
- f. Air dry on the magnet for **10 minutes**

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 [FormaPure.com/dry](https://www.formapure.com/dry)

10. Elution

- a. Remove samples from the magnet
- b. Add **40 μ L** water
- c. Pipette mix **10 times** to resuspend the beads
- d. Incubate at **60°C** for **1 minute**
- e. Separate on the magnet for **1 minute**
- f. Transfer eluate to a new plate or tube
- g. Store at **-20°C**, or **-80°C** for long-term storage

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3 Total isolation - DNA

5. Lysis

- a. If there is a pellet, pipette mix **10 times**
- b. Incubate at **60°C** for **60 minutes**
(or up to **overnight** if needed)

Start _____ End _____

6. Decrosslinking

- a. Incubate at **80°C** for **60 minutes**
- b. Transfer lysate to a new tube or plate


Start _____ End _____

 [FormaPure.com/lysate](https://www.formapure.com/lysate)

7. RNase Treatment

- a. Add **2.5 µL** of **RNase A**
- b. Pipette mix **5 times**
- c. Incubate for **5 minutes**

8. Bind DNA

- a. Add **150 µL** of Bind buffer - 
- b. Pipette mix **10 times**
- c. Incubate for **5 minutes**
- d. Separate on the magnet for **10 minutes**
- e. Aspirate and discard supernatant

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Continued on reverse side

3 continued



9. Wash

- a. Remove samples from the magnet
- b. Add **200 μ L** of Wash buffer - **WBA**
- c. Pipette mix **15 times** to resuspend the beads  [FormaPure.com/resuspend](https://www.formapure.com/resuspend)
- d. Separate on the magnet for **10 minutes**  [FormaPure.com/separate](https://www.formapure.com/separate)
- e. Aspirate and discard supernatant  [FormaPure.com/supernatant](https://www.formapure.com/supernatant)

10. Ethanol Wash & Air Dry

- a. Remove samples from the magnet
- b. Add **375 μ L** of **80% ethanol**
- c. Pipette mix **20 times** to resuspend the beads  [FormaPure.com/resuspend](https://www.formapure.com/resuspend)
- d. Separate on the magnet for **3 minutes**  [FormaPure.com/separate](https://www.formapure.com/separate)
- e. Aspirate and discard supernatant  [FormaPure.com/supernatant](https://www.formapure.com/supernatant)
- f. Air dry on the magnet for **10 minutes**  [FormaPure.com/dry](https://www.formapure.com/dry)

11. Elution

- a. Remove samples from the magnet
- b. Add **40 μ L** water
- c. Pipette mix **10 times** to resuspend the beads  [FormaPure.com/resuspend](https://www.formapure.com/resuspend)
- d. Incubate at **60°C** for **1 minute**
- e. Separate on the magnet for **1 minute**  [FormaPure.com/separate](https://www.formapure.com/separate)
- f. Transfer eluate to a new plate or tube
- g. Store at **-20°C**




4 RNA-only isolation


4. Lysis Transfer

- a. Centrifuge at **10,000 x g** for **5 minutes**
- b. Transfer all of the lysate to a new tube or plate

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5. First Bind

- a. Add **300 µL** of Bind buffer - 
- b. Pipette mix **10 times**
- c. Incubate for **5 minutes**
- d. Separate on the magnet for **10 minutes**
- e. Aspirate and discard supernatant

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 [FormaPure.com/separate](https://www.formapure.com/separate)

 [FormaPure.com/supernatant](https://www.formapure.com/supernatant)


6. Ethanol Wash

- a. Remove samples from the magnet
- b. Add **750 µL** of **80% ethanol**
- c. Pipette mix **20 times** to resuspend the beads
- d. Separate on the magnet for **3 minutes**
- e. Aspirate and discard supernatant
- f. Air dry on the magnet for **10 minutes**

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 [FormaPure.com/dry](https://www.formapure.com/dry)


7. DNase I Treatment

- a. Add **80 µL** of water
- b. Add **10 µL** of **10x DNase I buffer** and **10 µL** of **DNase I** and pipette mix **5 times**
- c. Incubate at **37°C** for **20 minutes**

Continued on reverse side

4 continued

8. Re-bind

- a. Add **150 μ L** of Re-bind buffer - 
- b. Pipette mix **10 times**
- c. Incubate for **5 minutes**
- d. Separate on the magnet for **10 minutes**
- e. Aspirate and discard supernatant

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 [FormaPure.com/supernatant](https://www.formapure.com/supernatant)

9. Ethanol Wash

- a. Remove samples from the magnet
- b. Add **750 μ L** of **80% ethanol**
- c. Pipette mix **20 times** to resuspend the beads
- d. Separate on the magnet for **3 minutes**
- e. Aspirate and discard supernatant
- f. Air dry on the magnet for **10 minutes**

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 [FormaPure.com/dry](https://www.formapure.com/dry)

10. Elution

- a. Remove samples from the magnet
- b. Add **40 μ L** water
- c. Pipette mix **10 times** to resuspend the beads
- d. Incubate at **60°C** for **1 minute**
- e. Separate on the magnet for **1 minute**
- f. Transfer eluate to a new plate or tube
- g. Store at **-20°C**, or **-80°C** for long-term storage

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 [FormaPure.com/separator](https://www.formapure.com/separator)

5 DNA-only isolation

4. Lysis

- a. If needed, extended **60°C** lysis
(up to **overnight**)

Start _____ End _____

5. Decrosslinking

- a. Incubate at **80°C** for **60 minutes**
 b. Transfer all of the lysate to a new tube or plate

Start _____ End _____




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6. RNase Treatment

- a. Add **5 µL** of **RNase A**
 b. Pipette mix **5 times**
 c. Incubate for **5 minutes**

7. Bind DNA

- a. Add **300 µL** of Bind buffer - 
 b. Pipette mix **10 times**
 c. Incubate for **5 minutes**
 d. Separate on the magnet for **10 minutes**
 e. Aspirate and discard supernatant



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Continued on reverse side

5 continued





8. Wash

- a. Remove samples from the magnet
- b. Add **400 μ L** of Wash buffer - **WBA**
- c. Pipette mix **15 times** to resuspend the beads
- d. Separate on the magnet for **10 minutes**
- e. Aspirate and discard supernatant

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-  [FormaPure.com/supernatant](https://www.formapure.com/supernatant)



5. Ethanol Wash & Air Dry

- a. Remove samples from the magnet
- b. Add **750 μ L** of **80% ethanol**
- c. Pipette mix **20 times** to resuspend the beads
- d. Separate on the magnet for **3 minutes**
- e. Aspirate and discard supernatant
- f. Air dry on the magnet for **10 minutes**

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-  [FormaPure.com/dry](https://www.formapure.com/dry)

10. Elution

- a. Remove samples from the magnet
- b. Add **40 μ L** water
- c. Pipette mix **10 times** to resuspend the beads
- d. Incubate at **60°C** for **1 minute**
- e. Separate on the magnet for **1 minute**
- f. Transfer eluate to a new plate or tube
- g. Store at **-20°C**

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-  [FormaPure.com/separate](https://www.formapure.com/separate)