CAMBRIAN BIOWORKS

INSTRUCTION FOR USE

FFPE gDNA extraction kit

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1. Intended Use

Cambrian bioworks FFPE gDNA extraction kit is a magnetic bead-based system designed for extraction and purification of genomic DNA from Formalin Fixed Paraffin Embedded (FFPE) tissue samples.

The product is intended to be used by professional users, such as technicians, research scientists and physicians that are trained in molecular biological techniques.

2.Description and Principle

The Cambrian gDNA Extraction from FFPE Tissue Kit is specifically optimized for the efficient purification of high-quality genomic DNA from formalin-fixed, paraffin-embedded (FFPE) tissue sections. This kit combines advanced magnetic bead-based technology for selective DNA binding with versatile deparaffinization options tailored to the needs of various sample types.

The kit includes a **mineral oil-based deparaffinization protocol**, which provides a safe, effective, and gentle method for removing paraffin. Mineral oil works by softening and loosening the wax, facilitating its displacement from the tissue sections without fully dissolving it. This approach is particularly suited for samples with light to moderate wax embedding or when working with fragile tissues, as it minimizes the risk of sample damage.

For FFPE samples with **significant wax contamination** or those heavily embedded in paraffin, the kit is compatible with an auxiliary **xylene-based deparaffinization protocol**. Xylene is a strong organic solvent that completely dissolves paraffin wax by interacting with its hydrophobic matrix, ensuring thorough removal even in challenging samples. This method improves downstream buffer penetration and enhances DNA extraction efficiency by exposing tissue for optimal lysis and DNA release.

The specially optimized lysis conditions, including an **overnight incubation step**, ensure efficient recovery of high molecular weight genomic DNA from even the most challenging FFPE samples. The lysis conditions have been tailored for the FFPE tissue, incorporating an overnight incubation phase to maximise tissue disruption and DNA release. The **decrosslinking step** is a crucial part of FFPE DNA extraction, as formalin fixation creates **extensive**

crosslinks between DNA and proteins, which can hinder downstream molecular applications. A 1-hour decrosslinking step at an elevated temperature following overnight Proteinase K digestion effectively reverses these crosslinks, restoring the DNA's structural integrity and improving its usability in molecular applications. This step enhances DNA yield, purity, and downstream performance, making it a critical component of FFPE DNA extraction workflows.

It is important to note that DNA extracted from FFPE specimens generally exhibits lower molecular weight due to inherent fragmentation from fixation and sample age. Factors such as tissue type, fixation duration, and storage conditions influence the extent of DNA fragmentation. Adherence to the provided protocol is essential for achieving optimal DNA yield, purity, and reproducibility.

The kit supports both automated and manual workflows, making it adaptable for diverse laboratory setups. The extracted DNA is eluted in Elution Buffer (EB), rendering it immediately suitable for applications like Next Generation Sequencing (NGS) or Polymerase Chain Reaction (PCR), or can be stored at -20°C for future use.

2.1 Pretreatment of the FFPE Tissue samples

Deparaffinization

Deparaffinization is a crucial first step in preparing Formalin-Fixed, Paraffin-Embedded (FFPE) tissue blocks for DNA extraction. Removing the paraffin ensures efficient exposure of the tissue, allowing for optimal lysis and DNA recovery.

Xylene is a widely used organic solvent for this process because of its strong ability to **completely dissolve paraffin wax**. It penetrates the wax, breaking it down efficiently without damaging the tissue underneath. FFPE tissue sections are typically immersed in xylene for a few minutes, often with multiple rounds of treatment to ensure thorough wax removal. Once the paraffin is fully dissolved, the tissue is washed with **100% ethanol (EtOH)** to remove residual xylene and initiate tissue rehydration. Ethanol plays a key role in transitioning the sample from a **hydrophobic to a hydrophilic state**, making it ready for enzymatic digestion.

For a **xylene-free** alternative, **mineral oil-based deparaffinization** offers a gentler approach, especially for delicate or lightly waxed samples. Instead of dissolving paraffin outright, mineral oil **softens and displaces** the wax, allowing it to be gradually removed. This method works well when combined with heat reducing the risk of sample loss or damage. While **not as aggressive as xylene**, mineral oil effectively removes wax without the need for hazardous solvents, making it a suitable choice for labs prioritizing safety and workflow flexibility. Using molecular grade Xylene is recommended for the deparaffinization step.

Both methods ensure **efficient deparaffinization**, maximizing tissue accessibility for **downstream DNA extraction** and preserving nucleic acid integrity for molecular applications.

Tissue lysis

In this step, the FTL buffer, along with the Proteinase K provided in the kit, is utilised. The combination of the anionic surfactant and Proteinase K in the lysis buffer ensures efficient tissue lysis following paraffin removal. This process is carried out at 56°C overnight, resulting in a fully lysed tissue sample, ready for further DNA extraction.

Decrosslinking

During the fixation process in FFPE preservation, buffered formalin (4% formaldehyde) is used to penetrate the biospecimen and create cross-links between intracellular macromolecules, including DNA-DNA, DNA-RNA, and DNA-protein. These cross-links can hinder DNA polymerase activity during library amplification, making it essential to reverse or decrosslink them before DNA extraction. In the CBW FFPE gDNA extraction kit, decrosslinking is achieved by incubating the lysed tissue samples at 90°C for 60 minutes. This step not only reverses the cross-links but also improves the yield and purity of the extracted genomic DNA.

2.2. Isolation and Purification of DNA

• Lysis/Binding Step

In this step, a guanidine-based buffer is used in combination with magnetic beads to further lyse the specimen and facilitate the binding of the released DNA onto the magnetic beads. The surface chemistry of the magnetic beads is

specifically designed to capture DNA fragments, ensuring high recovery. The binding lasts for 20 minutes on Manta.

Removal of Residual Contaminants

Once the genomic DNA is bound to the magnetic beads, any unbound contaminants are removed through a series of washes using Wash Buffer I, II, and III. Wash Buffers I and II are salt-based, helping to remove proteins and other impurities, while Wash Buffer III is ethanol-based, ensuring the efficient removal of residual contaminants without disrupting the DNA bound to the beads.

Elution of DNA

Purified DNA is eluted from the magnetic beads using Elution Buffer (EB), resulting in a concentrated DNA solution. Prior to elution, the magnetic beads are air-dried to ensure complete evaporation of any ethanol remnants from the final wash. This prevents contamination in the eluted DNA.

3. Reagent storage and handling

The kit should be stored at ROOM TEMPERATURE (15–30°C) upon arrival. Proteinase K must be stored at 4°C upon receipt and at -20°C after reconstitution. When stored properly, kit contents remain stable until the expiration date provided on the kit box.

4. Kit Components

Table 1: Materials provided with FFPE- gDNA extraction kit

Contents	Quantity (8 rxn)	Quantity (64 rxn)	Storage Temperature
Proteinase K (lyophilized) (PK)	6 mg	42 mg	4°C (Upon receipt of the kit) -20°C (upon reconstitution)
Proteinase K Diluent (PKD)	0.5 mL	2.2 mL	15-30°C

FFPE Tissue Lysis Buffer (FTL)	2 mL	14 mL	15-30°C
Mineral Oil	5 mL	33 mL	15-30°C
Combs	2 nos	10 nos	15-30°C
2 mL cartridges (pre-filled and sealed)	8 nos	64 nos	15-30°C
Elution Buffer (For blanking)	1 mL	2 mL	15-30°C

Table 2: Cartridge components (stored at room temperature)

Well Number	Contents	Quantity (Per Rxn)
1	Binding buffer	500 μL
2	Cambeads	200 μL
3	Wash buffer 1	500 μL
4	Wash buffer 2	500 μL
5	Wash buffer 3	300 μL
6	Elution buffer	60 µL

4.1. Materials required but not provided with the kit

- Pipettes
- Micropipette tips
- 100% Ethanol
- Thermomixer / Dry bath / Heat block
- Xylene (Molecular Biology Grade) To be procured by the consumer separately
- Vortex mixer
- Centrifuge
- 1.5 mL Microcentrifuge tubes

5. Warnings and Precautions

5.1. Safety information (general safety)

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). This can be provided to the customers upon request.

5.2 Precautions while handling Xylene

- **Ventilation:** Always work with xylene in a well-ventilated area, preferably under a fume hood, to avoid inhaling toxic vapours.
- **Personal Protective Equipment (PPE):** Wear appropriate PPE, including lab coats, nitrile gloves, and safety goggles, to prevent skin or eye contact.
- **Spill Management:** In case of a xylene spill, use an absorbent material specifically designed for organic solvents. Ensure proper disposal according to hazardous waste regulations.
- **Skin Contact:** If xylene comes in contact with the skin, immediately wash the area thoroughly with soap and water. Seek medical attention if irritation persists.
- **Eye Contact:** In case of eye exposure, rinse with copious amounts of water for at least 15 minutes and seek immediate medical assistance.
- **Fire Hazard:** Xylene is highly flammable. Keep it away from open flames, sparks, or sources of ignition. Store xylene in a designated flammable liquid storage cabinet.
- Waste Disposal: Collect xylene waste separately in a sealed, labelled container for proper hazardous waste disposal according to local regulations.
- Incompatible Reagents: Do not mix xylene with bleach, acidic solutions, or other reactive chemicals to avoid hazardous reactions.
- **General Safety:** If you suspect contamination with potentially infectious agents, clean the affected area with laboratory detergent and water, followed by disinfection with 1% (v/v) sodium hypochlorite.

5.3 Precautions while handling the kit reagents

- DO NOT add bleach or acidic solutions directly to the sample-preparation waste.
- FFPE Tissue Lysis Buffer (FTL) and lysis/Binding buffer (LBB) contain sodium dodecyl sulphate and guanidine hydrochloride respectively, which can form highly reactive compounds when combined with bleach.
- If liquid containing these buffers is spilt, clean with suitable laboratory detergent and water. If the spilt liquid contains potentially infectious agents, clean the affected area first with a laboratory detergent and water, and then with 1% (v/v) sodium hypochlorite. Clean the surface again with 70% Ethanol.
- If the buffer bottles are damaged or leaking, wear gloves and protective goggles when discarding the bottles in order to avoid personal injury or injury to others.
- Liquid waste must be considered infectious and be handled and discarded according to local safety regulations.

General advice: In case of an injury remove the affected person from the danger area. Consult a physician. Show the safety data sheet to the doctor in attendance.

- In case of contact with Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Continue rinsing eyes on the way to the hospital. Get medical aid.
- In case of contact with skin: Wash with soap and plenty of water. Remove contaminated clothing and shoes. Cover irritated skin with emollient. Consult a physician.
- **If ingested:** DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing. Get medical aid.
- **If inhaled:** Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.

6. Specimen storage and handling

The yield of DNA from FFPE tissue blocks can be highly variable due to several factors. These include the fixation time, the size and thickness of the tissue cores, the ratio of tissue to paraffin, the tissue type, as well as the age and storage conditions of the FFPE block. Additionally, the quality of DNA isolated from FFPE samples is often variable as well. During the fixation process, DNA becomes cross-linked to proteins and other nucleic acid molecules to differing extents, contributing to this variability. The DNA isolated from FFPE samples is typically shorter in fragment length compared to nucleic acids obtained from fresh or frozen tissues. This is especially true for older FFPE blocks or those stored under elevated temperatures. For optimal preservation, it's best to keep FFPE blocks at room temperature in a dry, controlled environment. Therefore, proper pretreatment steps are essential to ensure the extraction of high-quality nucleic acids suitable for sensitive analytical techniques.

7. Procedure

7.1 Preparation of working solutions

	Working solution preparation		
Kit Content	8 rxn kit 250 rxn kit		
Proteinase K	Add 0.3 mL of Proteinase K diluent (Store at -20°C after reconstitution)	Add 2.1 mL of Proteinase K diluent. (Store at -20°C after reconstitution)	

7.2 Deparaffinization Protocol for FFPE Samples

Deparaffinization can be performed using either mineral oil or xylene, depending on the characteristics of the FFPE sample block.

7.2.1 Deparaffinization of FFPE Samples Using Xylene

IMPORTANT:

- Xylene protocol is recommended for samples with significant wax contamination and heavy paraffin embedding.
- Use Molecular Biology grade Xylene for deparaffinization.
- Based on our internal trials, xylene-based deparaffinization consistently resulted in clean elution without wax carryover.
- For additional quidance on selecting the appropriate deparaffinization protocol, please refer to Section 11.

Deparaffinization and Sample Lysis

- 1. Take 4 curls of 10 μ m FFPE sample and place it in a 1.5 mL microcentrifuge tube.
 - SPECIAL NOTE: For tissue samples with low tumor content, like trucut biopsy samples, consult the troubleshooting section for guidance.
- 2. Pellet down the curls by centrifuging at 15000 rpm for 1 minute at RT.
- 3. Add 1 mL of Xylene to the curls and vortex vigorously for 10 seconds. Centrifuge at 15,000 rpm for 1 minute at room temperature. Discard xylene slowly and ensure the pellet remains undisturbed.
- 4. Repeat step 3.
- 5. To the pellet add 1 mL of 100% Ethanol and mix by vortexing (ethanol wash extracts the residual xylene from the sample). Centrifuge at 15000 rpm for 1 minute at room temperature and discard the supernatant.

NOTE: Discard the supernatant with a fine-tip pipette, to prevent loss of pellet.

- 6. Repeat step 5.
- 7. Dry the pellet at 37°C on a heat block for 20 mins or until all of the ethanol evaporates.
- 8. To the dried pellet, add 200 μ L of FTL buffer and 30 μ L of reconstituted Proteinase K.
- 9. Pulse vortex and incubate the sample tubes at 56°C on a Thermomixer at 1000 rpm for 16 hours or overnight.

NOTE: For 16 hours incubation step, a Thermomixer is recommended for effective lysis of the sample. But in case of unavailability, a heat block can also be used.

Decrosslinking of sample

1. After incubation for 16 hours, incubate the samples for 1 hour at 90°C on a dry bath or heat block for decrosslinking. After the incubation is over, allow the samples to cool down to room temperature.

NOTE:

- No mixing, vortexing or agitating of samples should be performed during this incubation. They should be left static on the heat block.
- There is a probability of the cap of the microcentrifuge tubes opening at high temperature. The tubes can be tightly wrapped with parafilm to prevent the caps popping open at 90° C.
- 2. Centrifuge the samples at 15,000 rpm for 1 minute.
- 3. Carefully pipette out the supernatant, without disturbing the bottom pellet (if any) and transfer ~200 μ L of the lysate to well 1 of the cartridge containing the binding buffer. Proceed to **section 7.3**

7.2.2 Deparaffinization of FFPE Samples Using Mineral Oil

IMPORTANT:

- Mineral oil-based deparaffinization is suitable for FFPE samples that are minimally embedded in wax, where the risk of wax carryover is low.
- For additional guidance on selecting the appropriate deparaffinization protocol, please refer to **Section 11**.
- 1. Take four 10 μ m curls of FFPE tissue and transfer them into a 1.5 mL microcentrifuge tube (MCT).
 - **SPECIAL NOTE:** For tissue samples with low tumor content, like Trucut biopsy samples, consult the troubleshooting section for guidance.
- 2. Centrifuge the tube at 15,000 pm for 1 minute to settle the tissue curls as a pellet.
- 3. Add 500 µL of mineral oil to the tube and incubate at 80°C for 2 minutes.
- 4. Add 200 μL of FTL Buffer to each sample tube.
- 5. Vortex briefly to mix and centrifuge at **10,000 RPM for 1 minute**. A **biphasic** layer should be visible at this stage.
- 6. Add 30 µL of reconstituted Proteinase K directly to the aqueous (bottom) layer, then gently mix the lower layer by pipetting up and down 15-20 times.

NOTE: If the upper layer solidifies and makes it challenging to add Proteinase K, place the sample on a heat block at 56°C for 30 seconds to 1 minute to melt the wax layer. Once the wax has softened, add Proteinase K directly to the lower aqueous layer.

7. Incubate the sample tubes at **56°C** in a Thermomixer at **1000** rpm for **16** hours or overnight.

NOTE: A **Thermomixer** is recommended for effective lysis. If unavailable, a **heat block** can be used, but ensure periodic vortexing of the samples during incubation to enhance digestion.

Decrosslinking of sample

- 1. After the **16-hour incubation**, further incubate the samples at **90°C for 1** hour in a dry bath or a heat block in static mode (no mixing). Once incubation is complete, allow the samples to cool to room temperature.
- 2. Centrifuge the samples at 15,000 rpm for 1 minute.
- 3. Transfer ~180 μ L of the lower aqueous layer to well 1 of the Manta cartridge containing the binding buffer. Proceed to **section 7.3**.

NOTE: If the **upper layer solidifies post centrifugation**, place the sample tubes back on a **56°C heat block** for **1-2 minutes** without vortexing. This will soften the wax layer, making the **aqueous (lower) layer pipettable**.

7.3. Protocol for genomic DNA extraction using MANTA



Fig 1 - Manta Nucleic Acid Extraction Robot

Manta is an automated system designed for efficient nucleic acid extraction across a wide range of biospecimens. Engineered with pre-filled reagent cartridges, Manta simplifies the workflow by minimising manual handling, thus reducing potential cross-contamination and preserving sample integrity. Its advanced features allow for high-throughput DNA, RNA, and cfDNA isolation with consistent yields and purity, making it an ideal solution for both routine diagnostics and cutting-edge research applications.

1. Handling the cartridge

- a) Gently tap the cartridge down before unsealing to ensure all buffer contents settle at the bottom of the wells. Now, place the pre-filled cartridges on the Manta tray based on the number of samples to be processed.
- b) Ensure that the cartridges fit in the deck tray properly. Remove the seal from the cartridge to expose the wells.
- c) Transfer 180 200 μL of the pre-digested FFPE tissue lysates (depending on the deparaffinization protocol) to Well 1 of the cartridge containing the Binding buffer. Mix the contents of Well 1 thoroughly using a pipette.

Transfer lysate to well 1

Fig 2 - Schematic representation of cartridge wells with sample and respective buffers

1 - 180 - 200 μ L of pre-digested FFPE lysate + 500 μ L Binding buffer

2 - 200 µL Magnetic beads

3 - 500 μL Wash buffer I

4 - 500 μL Wash buffer II

- 5 300 μL Wash buffer III
- 6 60 µL Elution buffer

3. Set-up and run

- a) Choose the Open door option on the main screen.
- b) Insert the combs or magnetic sleeves onto the Manta system until you hear an audible "click," indicating proper placement.
- c) Verify the correct alignment and placement of cartridges on the tray before inserting the tray into the Manta.
- d) Place the tray into the designated grooves inside the Manta, ensuring it is properly seated.
- e) Close the instrument door by pressing the "Close Door" button on the display.
- f) Select the appropriate protocol by navigating to "Choose Extraction Protocol" and choosing 'CB-200-i3'. Start the run by selecting the "Start" icon.
- g) After extraction, transfer the eluted DNA from Well 6 of the cartridge to a fresh DNase- and RNase-free microcentrifuge tube.
- h) Store the eluted DNA at -20°C for long-term use.
- i) Post elute transfer, return to the main menu, and proceed with UV sterilisation protocol to ensure safety.

8. Quality Control

Note: Use sterile consumables and sterile environments to avoid contamination like Rnases, Dnases etc.

- Acceptable range for DNA yield is between 1 and 15 μg (depends on the age of the FFPE block and tumour content) and purity ratios A260/280 and A260/230 are 1.7-1.9 and ~2.0 respectively
- Any value falling out of the recommended range should be re-considered.

9. Limitations

1. The system performance has been established using FFPE tissue for isolation of genomic DNA. It is the user's responsibility to validate

- system performance for any procedures used in their laboratory which are not covered by CBW performance studies.
- 2. To minimise the risk of a negative impact on the results, adequate controls for downstream applications should be used.
- 3. For further validation, the guidelines of the International Conference on Harmonization of Technical Requirements (ICH) in ICH Q2(R1) Validation Of Analytical Procedures: Text And Methodology are recommended. Any results that are generated must be interpreted in conjunction with other clinical or laboratory findings.

10. Troubleshooting guidelines

The document addresses all the possible issues that may arise while using Cambrian FFPE gDNA Extraction kit. If you have any questions or queries other than the enlisted issues, please feel free to write to us at www.cambrianbioworks.com

Problem	Possible causes	Suggestions	
	Low starting material	Increase the amount of starting material	
	(Eg: In the case of	from four curls of 10 microns to 12 curls	
	trucut biopsy samples)	of 10 microns to improve DNA yield.	
		Ensure that the samples are incubated	
		for 16 hours with the FTL buffer and	
Low yield of	Insufficient lysis of the	Proteinase K.	
DNA	tissue	Try incubating the samples on a	
	lissue	thermomixer at 1000 rpm instead of	
		using a static heat block for overnight	
		incubation at 56°C.	
	Missing components at	Add recommended volume of FTL buffer	
	lysis step	with PK when incubating for 16 hours	
	PK not reconstituted in	Reconstitute Proteinase K with the right	

	PKD	diluent provided in the kit.	
	Wrong number or	Use exactly 4 curls with a thickness of	
	thickness of curls used.	10 microns for tissue samples with	
	thickness of curis used.	moderate to high tumour content	
		Samples should be left static, no mixing	
	Improper	should be performed at this stage	
Ensure that the tempe		Ensure that the temperature at this step	
	de-crosslinking of	is 90°C.	
	samples	Incubation must not exceed or precede	
		60 minutes.	
		Spin down the lysate properly and	
		transfer only clear lysate without wax	
		carryover to a fresh centrifuge tube or	
		the Manta cartridge.	
		Try xylene based deparaffinization	
Poor quality of	ty of Elutes are translucent protocol for samples with large wax		
DNA	due to wax carryover contamination or heavy wax emb		
		Centrifuge the elute at high speed	
		(14,000 x g for 5 minutes), carefully	
		transfer the clear supernatant to a fresh	
		tube, and proceed with downstream	
		applications.	
		The buffer components must be stored	
	Improper storage of kit	in the recommended conditions only.	
Substandard	buffers.	This helps in maintaining the integrity of	
performance of		the buffers in terms of their pH, colour,	
samples in		sterility etc.	
downstream		In the rare instance of bead carryover in	
processing	Bead carryover	the elution well, transfer the elute to a	
	Dodd odirgover	fresh DNase/RNase-free microcentrifuge	
		tube (MCT) and centrifuge at 14,000	

rpm for 1 minute. Without disturbing the
bead pellet carefully transfer the
clarified elute to a new MCT. Store at
-20°C for downstream applications.

11. Additional Information

Xylene vs. Mineral Oil for Deparaffinization – Choosing the Right Approach for Your FFPE Samples

Deparaffinization is a crucial step in FFPE DNA extraction, as it removes paraffin and enables efficient lysis of the tissue. Our **FFPE gDNA extraction kit** offers two deparaffinization options—**Xylene and Mineral Oil**—each suited for different sample types and user preferences.

Xylene Deparaffinization: High Efficiency for Hard-to-Treat Samples

Advantages:

- Complete paraffin removal: Xylene effectively dissolves paraffin, ensuring maximum exposure of tissue for digestion and no residual wax interference.
- Ideal for highly paraffinized or old samples: Works well for dense tissue blocks or aged FFPE samples, where paraffin penetration is extensive.
- **Preferred for high-yield DNA extraction:** Ensures better tissue permeability and improved lysis, leading to higher nucleic acid recovery.
- **Preferred for trucut biopsy blocks:** Trucut biopsy samples are small and tightly embedded in paraffin, making complete deparaffinization critical for efficient DNA extraction, Xylene **dissolves paraffin more thoroughly** ensuring better tissue exposure.

Recommended for:

- Older or over-fixed FFPE tissue blocks
- Small or fragmented tissue samples with deep paraffin infiltration
- DNA extraction workflows requiring high purity and yield
- Trucut biopsy samples

Mineral Oil Deparaffinization: Safer and User-Friendly Alternative

Advantages:

- Safer for routine use: Mineral oil eliminates the need for hazardous organic solvents, reducing health and environmental risks.
- Less aggressive on fragile samples: Prevents potential damage to delicate nucleic acids, preserving DNA integrity.
- Simplifies handling: Allows direct enzymatic digestion without additional washing steps, making the workflow simpler and faster.
- Ideal for automation-friendly workflows: Reduces the need for hazardous waste disposal and is easier to integrate into high-throughput settings.

Recommended for:

- Freshly processed FFPE samples with minimal paraffin penetration
- Routine DNA extractions where a milder approach is preferred
- Laboratories prioritizing safety and convenience over absolute yield

12. References

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13. Ordering Information

SI no	Part name	No of reactions	SKU No
1	Cambrian FFPE DNA Isolation Kit for Manta	64	CBWM100.64

14. Key Symbols

***	Manufacturer	30°C - 20°C	Storage Temperature
REF	Catalogue Number	LOT	Batch Code
\sim	Date of Manufacture	Σ	Dataset
\triangle	Caution		Date of Expiry

15. Contact Information



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