

ExiPrep[™]

Beef Genomic DNA Kit

REF

K-3200-CB

ExiPrep™ Beef Genomic DNA Kit

User's Guide



Version No.: 3.0 (2019-09-06)

Please read all the information in booklet before using the unit



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Intended Use

ExiPrep™ Beef Genomic DNA Kit is developed and supplied for research purposes only. Certain applications possible with this kit may require special approval by appropriate local and/or national regulatory authorities in the country of use.

Safety Warning and Precaution

Wear appropriate protection when handling any irritant or harmful reagents. The use of a laboratory coat, protective gloves and safety goggles are highly recommended. For more information please consult the appropriate Material Safety Data Sheet (MSDS).

Warranty and Liability

All Bioneer products undergo extensive Quality Control testing and validation. Bioneer guarantees quality during the warranty period as specified, when following the appropriate protocol as supplied with the product. It is the responsibility of the purchaser to determine the suitability of the product for its particular use. Liability is conditional upon the customer providing full details of the problem to Bioneer within 30 days.

Trademark

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I. Kit components

	<i>ExiPrep™</i> Beef Genomic DNA Kit (K-3200-CB)
Buffer Cartridge ①	6 ea
Buffer Cartridge ②	6 ea
Beef Lysis Buffer	1 ea
Proteinase K (20 mg)	2 ea
Disposable Filter Tip	96 ea
Reaction Tube (0.5 ml)	96 ea
Elution Tube (8-strip)	12 ea
User's Guide	1 ea

II. Introduction

ExiPrep™ Beef Genomic DNA Kit is suitable to extract genomic DNA from animal tissue using the automatic nucleic acid extraction instrument, *ExiPrep™* or *ExiPrep™* Plus.

III. Storage

ExiPrep™ Beef Genomic DNA Kits are available in a buffer cartridge form. The buffer cartridge contains washing buffer, elution buffer and magnetic bead solution optimized for nucleic acid extraction. It is covered and sealed with aluminum foil film to protect leakage, evaporation and cross contamination. The sealed cartridge can be stored dry at room temperature (15 – 35°C) for up to 2 years.

ExiPrep™ Beef Genomic DNA Kits provide lyophilized enzymes (Proteinase K, RNase A) for user’s convenience. Lyophilized enzymes (Proteinase K, RNase A) are contained in 2ml screw cap tubes and enclosed in the buffer cartridge. It can be stored at room temperature (15 – 35°C) up to 2 years. Once dissolved, enzymes must be stored at –20°C. Disposable tips, reaction tubes and elution tubes are also provided which are DNase and RNase free.

IV. Starting amount and typical yield




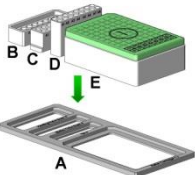
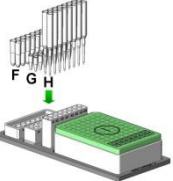
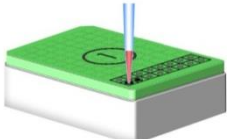
Amounts of starting sample volume, elution volume and typical yield are described as below.

Sample type	Starting amount	Elution volume	Typical yield
Animal tissue (Bovine muscle)	10 – 40 mg	50 µl	5 – 10 µg

V. Genomic DNA Extraction

This protocol is designed for extraction of genomic DNA from animal tissues (muscle, liver, kidney, spleen, heart, tail etc.). This protocol requires shaking water bath and table top centrifuge. Firstly, dissolve 20 mg of Proteinase K into 1 ml of DNase, RNase free water. Beef lysis buffer may form precipitates during storage. Please warm the buffer at 60°C until precipitates are completely dissolved.

Tissue samples can be disrupted first by pestle & mortar or any other tissue disruptor.

	<ol style="list-style-type: none"> 1. Add liquid nitrogen into the mortar to cool the mortar and pestle. 2. Cut 10 – 40 mg of animal tissue and transfer into the mortar. 3. Grind to a fine powder.
	<ol style="list-style-type: none"> 4. Transfer the powdered tissue into 1.5 ml test tube (not provided). 5. Add 20 µl of Proteinase K and 250 µl of Beef lysis buffer into the tube.
	<ol style="list-style-type: none"> 6. Incubate the tube at 60°C for at least 2 hours in shaking. ※ We recommend O/N incubation for complete lysis. 7. Centrifuge the tube at 13,000 rpm for 5 min to remove any remaining tissue that is not lysed.
	<ol style="list-style-type: none"> 8. During step 7, place the reaction tube rack (B), elution tube rack (C), disposable tip rack (D) and buffer cartridge ① (E) onto the setup tray (A).
	<ol style="list-style-type: none"> 9. Load the reaction tubes (F), elution tubes (G) and disposable filter tips (H) into each of the racks. 10. Ensure that all tips and tubes are aligned and positioned in the right direction.
	<ol style="list-style-type: none"> 11. Load 200 µl of sample into the sample loading wells. Be careful not to contaminate other wells.

	<p>12. Place the reaction tube rack in the base plate.</p>
	<p>13. Punch holes in the buffer cartridge according to the number of samples ②.</p>
	<p>14. Place the buffer cartridge ① in the base plate.</p>
	<p>15. Place the elution tube rack in the base plate.</p>
	<p>16. Place the disposable filter tip rack in the base plate.</p>
	<p>17. Place the waste tray in the base plate between the two buffer cartridges, ① and ②. 18. Push the base plate back into the instrument and close the door.</p>

	<p>19. Turn on the <i>ExiPrep</i>™ or <i>ExiPrep</i>™ Plus. 20. Press the 'Start' button to access the PREP SETUP menu.</p>
	<p>21. Enter a protocol number 102. 22. Press the 'Enter' button.</p>
	<p>23. Select the elution volume on the touch screen. 24. Press the 'ok' button.</p>
	<p>25. Follow the instructions according to 'CHECK LIST' and confirm.</p>
	<p>26. Verify the protocol name on the screen. 27. Press the 'Run' button to start.</p>
	<p>28. After completion, take the elution tubes from the base plate first. 29. Remove all remaining parts from the base plate and close the door.</p>

VI. Troubleshooting

1. Low yield of Genomic DNA











- 1) Yield varies by sample type and amount. Check if you added sufficient amount of sample? Sometimes too much sample may decrease yield.
- 2) Did you completely lyse sample? Insufficient lysis decreases yield and purity.
- 3) Is there precipitated salt in the lysis buffer, or resuspension buffer? Keep the bottles at 60°C to re-dissolve.
- 4) Did you shake your buffer cartridge ① before use? Incomplete suspension of the magnetic beads may decrease yield and purity.

2. Co-eluted magnetic particle

Sometimes magnetic particles are co-eluted with your extracted DNA. These magnetic particles, however, won't affect yield or purity, as they don't bind viral DNA and RNA in elution buffer.

Co-eluted magnetic particles can easily separate by simple centrifugation.

VII. Explanation of symbols

	Catalog Number		Contains sufficient for (n) tests		USE BY
	Batch code		Caution, consult accompanying documents		Temperature Limitation
	Manufacturer		Caution, Potential Biohazard		DO NOT REUSE
	Consult Instruction For Use				

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