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PCR BIO Rapid Extract Lysis Kit

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Product description:

PCR BIO Rapid Extract Lysis Kit has been designed for fast, column-free extraction of PCR-ready DNA from a variety of sample types including animal tissue, hair follicle and mammalian blood. The kit is particularly suited to solid tissue such as mouse tail or mouse ear.

The kit contains a lysis and protease buffer system designed for rapid DNA extraction without the need for laborious and time consuming extraction methods. DNA extraction is performed in a single tube thereby reducing potential contamination and sample loss. Extraction of DNA is rapid, requiring only a 15 minute incubation before the DNA is ready for use directly in your PCR. Alternatively, it can be stored between -30 °C and -15 °C for future use.

The DNA generated with PCR BIO Rapid Extract Lysis Kit is suitable for use in all downstream PCR and qPCR applications without further clean-up steps.

Component	80 extractions	240 extractions
5x PCR BIO Rapid Extract Buffer A	1 x 1.6 mL	3 x 1.6 mL
10x PCR BIO Rapid Extract Buffer B	1 x 800 µL	3 x 800 µL

Shipping and storage

On arrival the kit should be stored between -30 °C and -15 °C. If stored correctly the kit will retain full activity for 12 months. The kit can go through 30 freeze/thaw cycles with no loss of activity.

Limitations of product use

The product may be used only for in vitro research purposes.

Technical support

Help and support is available on our website at <https://pcrbio.com/resources/> including answers to frequently asked technical questions. For technical support and troubleshooting you can submit a technical enquiry online, or alternatively email technical@pcrbio.com with the following information:

- Reaction setup
- Screen grabs of qPCR or PCR data.

Sample amounts

Sample	Amount per 100µL extraction	Notes
Mouse tail clip	1 to 2 mm (2.5 to 6 mg)	
Mouse ear punch	2 to 4 mm ² (2.5 to 6 mg)	
Animal tissue	3 to 30 mg	
Hair follicle	1-10 individual follicles	
Buccal swab	1 swab	Use 300 µL extraction volume for higher yield
Mammalian blood	2 to 8 µL Fresh/EDTA blood	2 mm ² FTA, FTA elute or Guthrie cards
FFPE tissue	1 mm ³ or 2 mm ² of 10 µm section	

Protocol

1. Extraction reaction setup

Prepare the reaction as follows:

Reagent	100µL reaction	Notes
Mouse tail clip	1 to 2 mm (2.5 to 6 mg)	See table above for other samples
5x PCR BIO Rapid Extract Buffer A	20 µL	Lysis buffer
10x PCR BIO Rapid Extract Buffer B	10 µL	Protease containing buffer
PCR grade dH ₂ O	70 µL	

2. Extraction reaction incubation

Incubate extraction reaction for lysis, nuclease and protein denaturation, followed by heat-inactivation:

Cycles	Temperature	Time	Notes
1	75 °C	5 min	Vortex twice during incubation
1	95 °C	10 min	Deactivates protease

3. Dilute then centrifuge reaction

Add 900 µl PCR grade dH₂O to the deactivated reaction. Centrifuge at high speed in a microcentrifuge for 1 minute to pellet debris. The supernatant contains the extracted DNA and may be used directly in PCR or stored between -30 °C and -15 °C indefinitely.

4. PCR reaction setup

Extracted DNA may be used as a template for PCR or qPCR without further clean-up steps. We recommend 1-2 µL of extract for a 50 µL PCR reaction or 20 µL qPCR reaction. The PCR BIO and qPCR BIO range of endpoint and real-time products are recommended for use with this kit.

If contamination from cell extract is a concern, the extracted DNA may be further diluted in water or TE buffer. As DNA concentration and PCR efficiency can vary, users should test a range of dilutions from 10x - 500x to determine the optimal concentration for their PCR.