

# FitAmp™ Paraffin Tissue Section DNA Isolation Kit

Base Catalog # P-1009

## PLEASE READ THIS ENTIRE USER GUIDE BEFORE USE

The *FitAmp*™ Paraffin Tissue Section DNA Isolation Kit is very suitable for isolating tiny amounts of DNA from microdissection samples, fresh tissue sections, formalin-fixed and paraffin-embedded tissues, plasma, serum, body fluids, etc. The quality of extracted DNA from formalin-fixed and paraffin-embedded tissues may be affected by the quality of the embedded tissue.

The *FitAmp*™ Paraffin Tissue Section DNA Isolation Kit allows isolation of DNA size from 50 bp to 20 kb; DNA quantity from 1 ng to 2 µg, optimal at between 10 ng and 1 µg.

## KIT CONTENTS

Components	50 samples P-1009-1	100 samples P-1009-2
PS1 (DNA Digestion Solution)	0.5 ml	1 ml
PS2 (DNA Digestion Powder)	1 vial	1 vial
PS3 (DNA Isolation Buffer)	10 ml	20 ml
PS4 (DNA Binding Buffer)	12 ml	22 ml
PS5 (DNA Elution Solution)	1 ml	2 ml
F-Spin Column	50	100
F-Collection Tube	50	100
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## SHIPPING & STORAGE

The *FitAmp*<sup>™</sup> Paraffin Tissue Section DNA Isolation Kit can be stored at room temperature (20-22°C) for 6 months from shipping date, with the exception of **PS2**. Upon receipt, **PS2** should be stored at -20°C or stored at 4°C as soon as it is dissolved in **PS1** (stable for up to 6 months).

## GENERAL PRODUCT INFORMATION

**Quality Control:** Epigenetek guarantees the performance of all products in the manner described in our product instructions.

**Product Updates:** Epigenetek reserves the right to change or modify any product to enhance its performance and design.

**Usage Limitation:** The *FitAmp*<sup>™</sup> Paraffin Tissue Section DNA Isolation Kit is for research use only and is not intended for diagnostic or therapeutic application.

**Intellectual Property:** *FitAmp*<sup>™</sup> is a trademark of Epigenetek, Inc.

## A BRIEF OVERVIEW

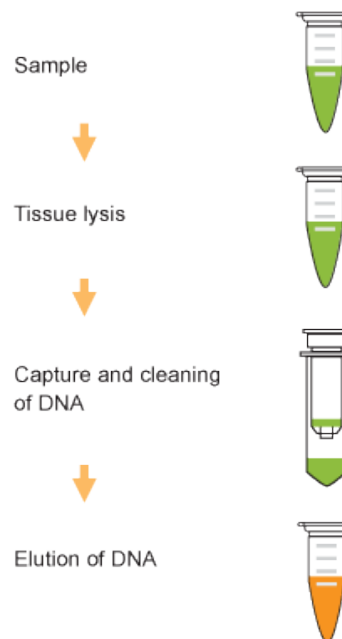
Retrospective studies with DNA on archival tissue samples would provide significant information for disease-related molecular processes. However, isolating high-quality genomic DNA from formalin-fixed, paraffin-embedded tissue can be difficult because only minimal amounts of intact DNA may be present in the sample. The *FitAmp*<sup>™</sup> Paraffin Tissue Section DNA Isolation Kit uses a unique procedure and composition to efficiently isolate DNA from paraffin archives. The kit has the following features:

- The fastest procedure currently available, which can be finished within 2 hours, depending on sample types, with consistent isolation conditions.
- High efficiency of DNA isolation from tissue sections containing tiny amounts of DNA (as low as 1 ng).

- No requirement for pre-deparaffinization.
- Use of non-toxic reagents and no phenol chloroform.

## PRINCIPLE & PROCEDURE

The *FitAmp*<sup>™</sup> Paraffin Tissue Section DNA Isolation Kit simply applies our proprietary DNA isolation buffer to the samples. After treatment with DNA digestion buffer, the DNA is easily recovered in 8-20  $\mu$ l by our specially designed Fast-Spin Column. DNA is ready for down-stream application.



Schematic Procedure for Using the *FitAmp*<sup>™</sup> Paraffin Tissue Section DNA Isolation Kit

## ASSAY PROTOCOL

*Note:* Always cap spin columns before placing them in the microcentrifuge.

Before starting, prepare the following required solutions (not included):  
90% Ethanol and 70% Ethanol

1. Add 0.5 ml (for P-1009-1) or 1 ml (for P-1009-2) of **PS1** to **PS2**. Vortex until **PS1/PS2 solution** is clear.
2. Remove the tissue area you need (1-40 mm<sup>2</sup> of 10  $\mu$ m thick tissue) from the slide with a scalpel. Transfer it to a 1.5 ml vial and add 100  $\mu$ l of **PS3** (for tissue area > 20 mm<sup>2</sup>, add 200  $\mu$ l of **PS3**).
3. Incubate the sample at 95°C for 10-15 minutes. Vortex for 5-10 seconds and leave it at room temperature for 1 minute.
4. Add 5  $\mu$ l of **PS1/PS2 solution** to each 100  $\mu$ l of the sample solution. Mix and incubate this mixed solution at 65°C for 60-90 minutes or until paraffin tissue is completely lysed (it is usually less than

- 2 hours). Vortex the sample for 5-10 seconds every 30 minutes. If tissue is not properly in this mixed solution after vortexing, spin it down into the solution.
5. Vortex the mixture for 5 seconds after incubation. Add 200  $\mu$ l of **PS4** to the mixture and centrifuge at 12,000 rpm for 1 minute. The paraffin layer should now be on the top and the clear solution on the bottom. Place a spin column into a 2 ml collection tube. Carefully penetrate through the paraffin layer and transfer the clear solution to the column. Spin for 30 seconds at 12,000 rpm. Discard the flowthrough. Replace the column to the collection tube (*Note: maximum volume of the column is 600  $\mu$ l.*)
  6. Add 200  $\mu$ l of 70% ethanol to the column and spin at 12,000 rpm for 20 seconds. Add 200  $\mu$ l of 90% ethanol to the column and spin at 12,000 rpm for 20 seconds. Discard the flowthrough and replace the column to the collection tube.
  7. Add additional 200  $\mu$ l of 90% ethanol to the column and spin at 12,000 rpm for 40 seconds.
  8. Place the column in a new 1.5 ml vial. Add 8-18  $\mu$ l of **PS5** directly to the column filter, and centrifuge at 12,000 rpm for 20 seconds to elute DNA.

DNA is now ready for use or storage at  $-20^{\circ}\text{C}$ .

## RELATED PRODUCTS

- P-1003 *FitAmp*<sup>™</sup> General Tissue Section DNA Isolation Kit  
P-1004 *FitAmp*<sup>™</sup> Plasma/Serum DNA Isolation Kit

