

Arcis DNA Prep Kit

Fast and Convenient Sample Prep

Arcis DNA Prep Kit is a fast and convenient sample preparation kit allowing rapid amplification of genomic DNA from a variety of samples including whole blood, bacteria, viruses and animal cells or tissues. In 3 minutes, with no prior sample preparation, the Arcis DNA Prep Kit allows you to go from a variety of samples to downstream nucleic acid investigations without the need for additional isolation or purification.

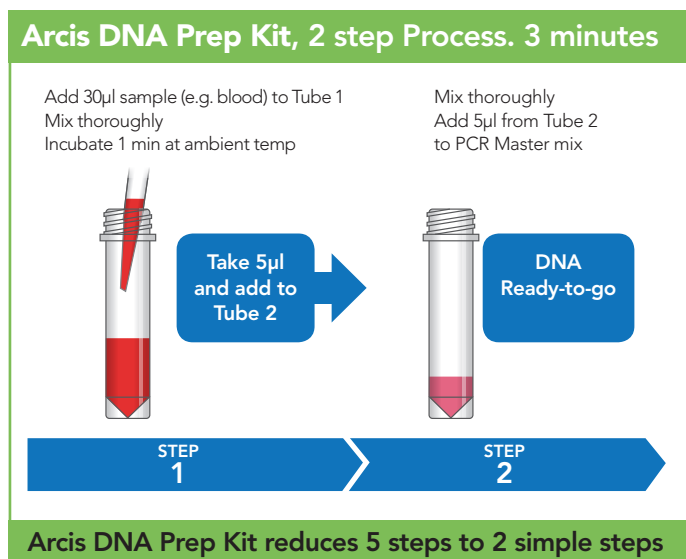
- Compatible with a wide variety of downstream applications
- Does not require heating or centrifugation steps
- Stabilises DNA for up to 30 days at ambient temperatures



Procedure

Arcis DNA Prep Kit Protocol

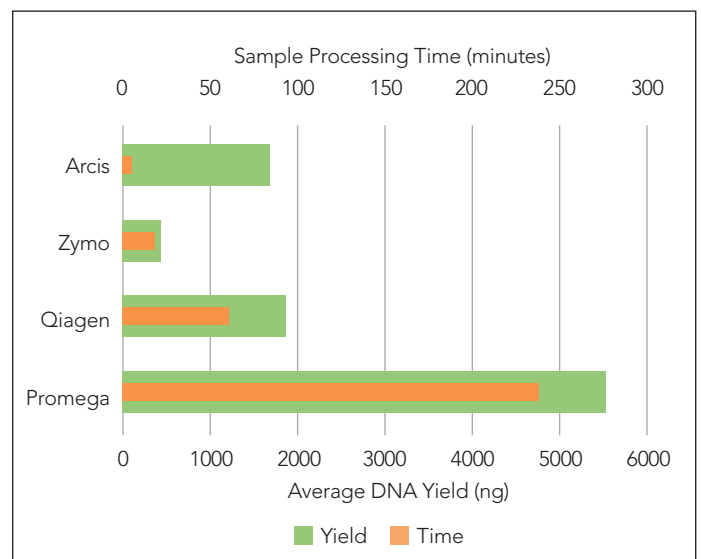
Existing sample prep systems are often time-consuming and require laborious heating and centrifugation steps. The Arcis DNA Prep Kit requires only 2 steps and takes less than 3 minutes.



Results

DNA Yield vs Sample Processing Time

These competitors to Arcis DNA Prep Kit all require additional instrumentation and the processing times range from 20 minutes to 4 hours.



Ordering Information

Catalogue Number	Product Description	Kit Size
UFL002B	Arcis DNA Prep Kit (Bulk 2 tubes)	50 rxns

CASE STUDY: FORENSICS

A simple ultra-fast sample processing method for forensic samples



Introduction

Processing forensics-relevant samples presents a number of challenges to existing nucleic extraction systems. Obtaining genetic material is often a time consuming and inefficient process, with different extraction solutions required for different sample types.

Currently, sample preparation systems consist of multi-step manual or robotic methods which involve instrumentation such as heaters and centrifuges, or expensive integrated platforms. Hence, there is a need for a simplified method which can deliver amplifiable genetic material with greatly

reduced turn-around time and is applicable to many downstream investigations.

The Arcis Sample Prep Kit is a ready-to-use kit comprising two pre-filled tubes allowing rapid amplification of genomic DNA from a variety of samples including whole blood, bacteria, viruses and animal cells or tissues.

In 3 minutes, with no prior sample preparation, the Arcis Sample Prep Kit allows you to go from cells to downstream nucleic acid investigations without the need for isolation or purification.

Applications

The Arcis Sample Prep Kit has been successfully trialled at a range of industrial and academic settings, using the following technologies:

- End-point PCR
- qPCR (SYBR and probe-based)
- Isothermal Amplification (LAMP)
- Sequencing (Sanger, Pyro and Next-Generation)
- DNA fragment analysis (3500 Genetic Analyzer)

The following human sample types have been processed using the Arcis system:

- Whole blood • Dried Blood • Contaminated Blood
- Plasma
- Urine
- Sputum
- Buccal swabs
- Hair follicles

Genetic Profiling

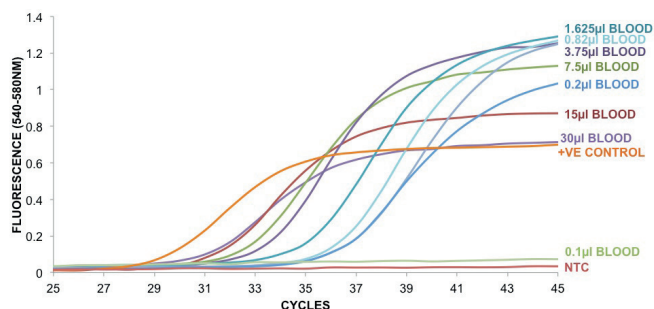
The Arcis Sample Prep Kit was used to accelerate sample processing in a panel of whole blood samples which were subjected to genetic profiling on the 3500XL Genetic Analyzer (Applied Biosystems) with Powerplex®Fusion Kit (Promega). All samples gave full or partial profiles consistent with results obtained by the existing extraction system; DNA yield and quality were shown to be comparable. Importantly, initial sample processing time was reduced from greater than 60 minutes to less than 5 minutes

Results: qPCR

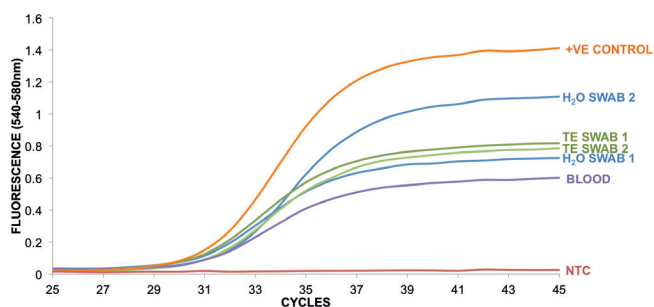
A range of forensics-relevant samples were processed using the Arcis Sample Prep Kit. Total processing time for each sample was around 3 minutes. A range of samples were tested including buccal swabs, hair follicles, and dried blood on card or swabbed from a surface.

Strong amplification curves were generated for each sample tested. For whole blood, very strong signals were generated from as little as 0.2µl starting material.

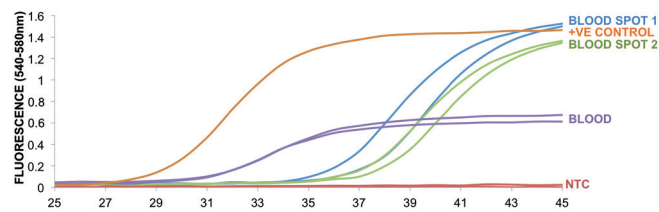
A: Analytical Sensitivity



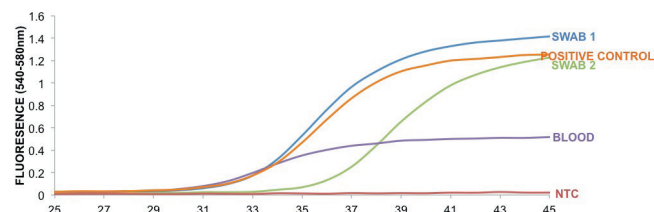
B: Dried Blood Swabs



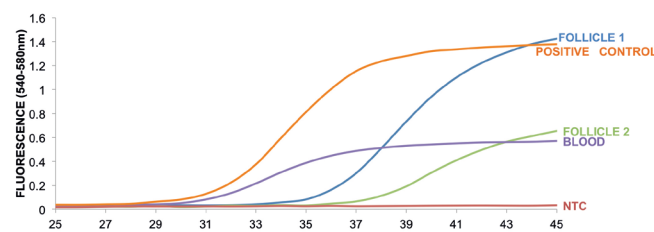
C: Dried Blood Spots



D: Buccal Swabs



E: Hair Follicles



Conclusions

The Arcis Sample Prep Kit can accelerate and simplify sample processing in a variety of settings on a range of human samples. The two-step, instrument-free protocol can increase capacity, reduce costs and increase sample prep efficiency.

To order the
Arcis DNA Prep Kit
please contact us today





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The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

www.wolflabs.co.uk

Tel : 01759 301142

Fax : 01759 301143

sales@wolflabs.co.uk

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