# Arcis Blood Kit

## (Bulk Kit)

| UFL005 | Arcis Blood Kit 50 reactions |
|---|---|

CE IVD

## Instructions for use

### 1. General Information

The Arcis Blood Kit is a ready to use, validated kit containing two reagents which enable nucleic acid extraction from human blood samples.

In 3 minutes the Arcis Blood Kit can allow you to go from blood samples to downstream nucleic acid investigations such as qPCR without the need for further isolation or purification. As this product does not require heating or centrifugation it is ideal for use in low technology environments.

The product is intended to be used by trained users proficient in molecular biological techniques and is intended for in vitro diagnostic use.

### 2. Materials Provided

| Material Provided | Quantity | Number of Preps |
|---|---|---|
| Reagent 1 | 1 bottle | 50* |
| Reagent 2 | 1 bottle | |

* 50 reactions based on standard protocol volumes.

### 3. Storage Conditions

Recommended storage conditions before use: 4°C to 40°C.

Vials should be capped when not in use.

### 4. Samples

The Arcis Blood Kit is a sample prep system that has been validated as an in-vitro diagnostic kit for the extraction of human nucleic acids from blood. The kit is suitable for fresh or frozen whole blood samples, and can be used with specimens stored in solutions containing EDTA or Heparin. The nucleic acids released are suitable for direct use in molecular diagnostic investigations using techniques such as qPCR.

The Arcis Blood Kit has been validated for the release of human genomic DNA from human blood samples. The product should only be used by professional operators trained in appropriate in vitro procedures.

The Arcis Blood Kit can be used on a research only basis for the release of other nucleic acids (e.g. viral RNA from blood samples) and other sample types (e.g. forensic, dried blood, animal blood, tissue, serum and plasma.). For details on suggested optimized protocols for different samples types such as tissue, buccal swab, blood, saliva, hair follicle etc. please see our website www.arcisbio.com

The Arcis Blood kit does not require samples to be pre-incubated with Proteinase K or heating before extraction.

It is recommended that solid samples such as tissue or follicle material should be homogenized directly in Arcis Reagent 1.

Swabs should be placed directly in Arcis Reagent 1 rather than into transport reagent.

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# Instructions for Use continued

## 5. Applications

The nucleic acids released by the kit have been successfully used directly in molecular biology techniques including qPCR, Next Generation Sequencing and Isothermal Amplification without the need for further clean-up or purification steps.

## 6. Standard Protocol

If samples are frozen ensure that they have thawed completely before starting this procedure.

6.1. Add 30µl of sample to 150µl of Reagent 1 (or scale up for larger sample volume). Mix thoroughly using a pipette or by vortex mixing.

6.2. Incubate for one minute at room temperature. At this point DNA is stabilised for 90 days and RNA is stabilised for up to 7 days at room temperature, provided there is no further processing. The sample may show haem carry over and therefore be red in colour but this will not interfere with subsequent processing.

6.3. Take 5µl of the above lysed mixture and combine with 20µl of Reagent 2 (or scale up for larger sample volumes maintaining the 1:4 ratio). Once processed with Reagent 2, samples should be used within 4 hours or frozen at -20˚C.

6.4. Add appropriate volume into PCR master mix (e.g. 5µl per 25µl reaction) or continue directly to other downstream technique.

## 7. Protocol for Dilute Samples/ Increased Sensitivity

For applications where enhanced sensitivity is required, or when handling very dilute research samples such as serum or plasma, the ratio of sample to Arcis Reagent 1 can be increased to avoid further dilution. The following protocol modifications can be used:

Samples can be mixed with Reagent 1 at a 1:4 or 1:3 ratio to reduce sample dilution (See Table 1).

Samples that have been processed in step 6.1 can be added to Reagent 2 at 1:3, 1:2 or 1:1 ratio to reduce sample dilution (See Table 2).

**Table 1:** Processing samples in Reagent 1*

| Sample Volume (µl) | Reagent 1 Volume (µl) | Ratio |
|---|---|---|
| 30 | 120 | 1:4 |
| 30 | 90 | 1:3 |
| 60 | 180 | 1:3 |

**Table 2:** Reaction mixture samples in Reagent 2

| Extract from lysis reaction (µl) | Reagent 2 Volume (µl) | Ratio |
|---|---|---|
| 5 | 15 | 1:3 |
| 10 | 20 | 1:2 |
| 20 | 20 | 1:1 |

*Increasing volume of reagents will reduce the total number of samples that can be processed by the kit.

## 8. Manufacturer Contact Details

**Arcis Biotechnology Ltd**
Suite S07 Techspace One
Sci-tech Daresbury
Keckwick Lane
Daresbury
Cheshire UK WA4 4AB
www.arcisbio.com

Sales: +44 (0)1925 607 101
order@arcisbio.com

Technical Support: +44 (0)1925 607 102
support@arcisbio.com



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