

# Life Science unlimited

Innovative Nucleic Acid Technologies

**innuPREP** DNA Purification Systems



# innuPREP DNA Purification Systems

The innuPREP DNA Purification Systems have been developed for very efficient isolation of DNA from different kinds of starting materials.

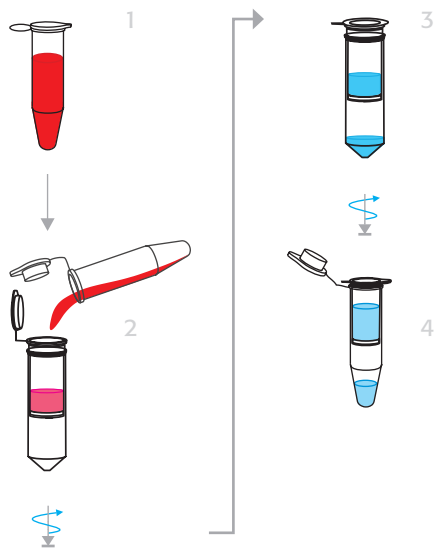
The isolation procedure is based on a new kind of chemistry, which allows particularly the recovery of degraded DNA and very limited amounts of DNA with high yield and quality. This is important for a lot of applications where only limited amounts of starting material and very dirty starting material is available (forensic or diagnostic applications).

The purified DNA is free of contaminants and inhibitors for further downstream applications.

The isolation procedure consists of lysis of starting material with Proteinase K, binding of the DNA on the surface of a spin filter column, washing of the bound DNA and its final elution. All steps are performed by means of a table centrifuge.

## General Principle

Lysis – Bind – Wash – Elute



## rapidPCR with thermal cycler SpeedCycler by Analytik Jena



## innuPREP Forensic Kit

### Starting material

- Blood stains
- Hairs and hair roots
- Finger nails
- Stamps and envelopes
- Cigarette butts
- Bubble gum
- Dental floss
- Swabs
- Sperm stains
- Fingerprints from surfaces
- Barb hairs
- Buccal swab

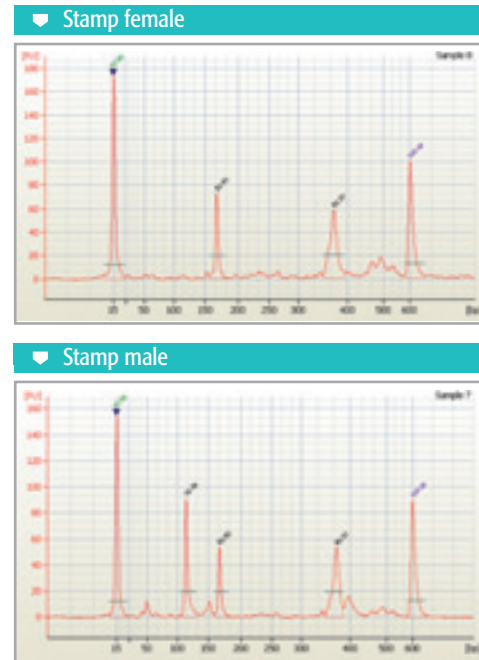
All these samples were successfully tested.

### Time for isolation

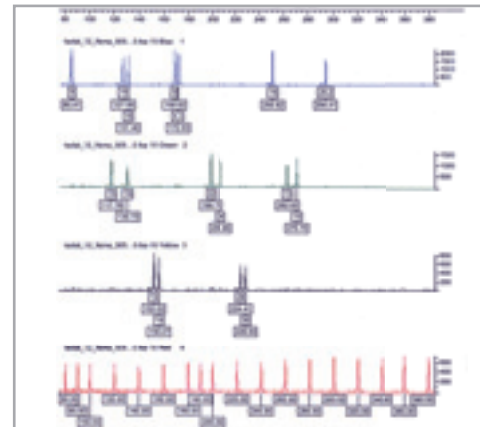
Approximately 15 minutes after lysis

Isolation of DNA from stamps and subsequent amplification of human specific target sequences (DYS458-STR marker for y-chromosome; human GAPDH; D21S1414-marker for aneuploidie of chromosome 21).

The amplified DNA-fragments were analyzed on Bioanalyzer.



Isolation of DNA from cigarette butts and subsequent STR analysis.



## innuPREP DNA Micro Kit

### Starting material

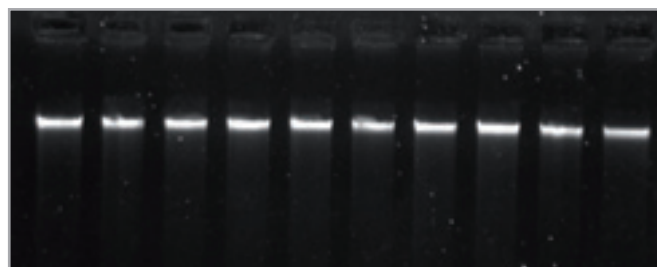
- Small pieces of tissue samples or biopsies (max. 5 mg)
- Paraffine embedded tissue samples
- Eucaryotic cells (max.  $10^6$ )
- Whole blood (up to 50  $\mu$ l)
- Blood sticks

### Time for isolation

Approximately 6 minutes after lysis

**Ratio  $A_{260} : A_{280}$**

1.7 – 2.0



innuPREP DNA Micro Kit

Isolation of genomic DNA from 50  $\mu$ l of whole blood samples in each case.

## innuPREP DNA Mini Kit

### Starting material

- Tissue samples (up to 50 mg)
- Rodent tails (0.5 – 1 cm)
- Paraffine embedded tissue samples
- Buccal swabs
- Eucaryotic cells ( $5 \times 10^6$  cells)

### Time for isolation

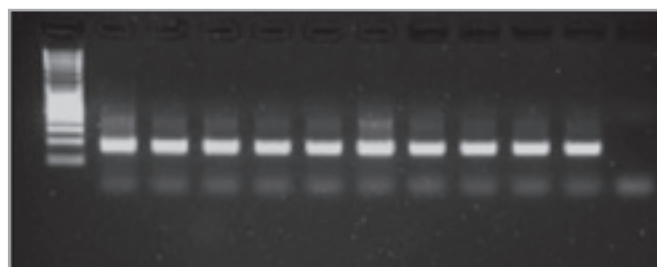
Approximately 15 minutes after lysis

### Yield

Depends on type and amount of starting material; binding capacity > 100  $\mu$ g genomic DNA

**Ratio  $A_{260} : A_{280}$**

1.7–2.0



innuPREP DNA Mini Kit

Isolation of DNA from different buccal swab samples and subsequent amplification of a human specific target sequence (human GAPDH).

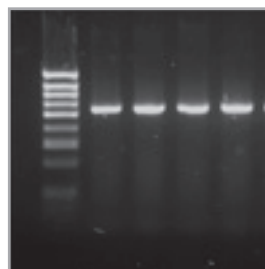
## innuPREP Stool DNA Kit

### Starting material

- Up to 300 mg of stool samples from human or animal origin

### Time for Isolation

Approximately 45 minutes



innuPREP Stool DNA Kit

Isolation of bacterial DNA from stool samples and subsequent amplification of an *E. coli* specific target sequence (538 bp) in less than 8 minutes using the SpeedCycler (Analytik Jena AG).

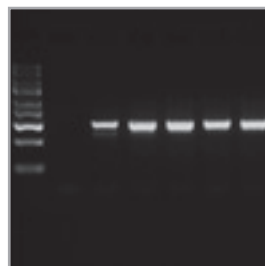
## innuPREP Bacteria DNA Kit

### Starting material

- Isolation of bacterial DNA from bacteria cell pellets after cultivation

### Time for Isolation

Approximately 15 minutes after lysis



innuPREP Bacteria DNA Kit

Isolation of DNA from *B. subtilis* spores and subsequent amplification of a *B. subtilis* specific target sequence.

Catalog number	Product
845-KS-1010010	innuPREP DNA Micro Kit (10)
845-KS-1010050	innuPREP DNA Micro Kit (50)
845-KS-1010250	innuPREP DNA Micro Kit (250)
845-KS-1040010	innuPREP DNA Mini Kit (10)
845-KS-1040050	innuPREP DNA Mini Kit (50)
845-KS-1040250	innuPREP DNA Mini Kit (250)
845-KS-1050010	innuPREP Forensic Kit (10)
845-KS-1050050	innuPREP Forensic Kit (50)
845-KS-1050250	innuPREP Forensic Kit (250)
845-KS-1020010	innuPREP Blood DNA Mini Kit (10)
845-KS-1020050	innuPREP Blood DNA Mini Kit (50)
845-KS-1020250	innuPREP Blood DNA Mini Kit (250)
845-KS-1030010	innuPREP Blood DNA Midi Kit (10)
845-KS-1030050	innuPREP Blood DNA Midi Kit (50)
845-KS-1030250	innuPREP Blood DNA Midi Kit (250)
845-KS-1060010	innuPREP Plant DNA Kit (10)
845-KS-1060050	innuPREP Plant DNA Kit (50)
845-KS-1060250	innuPREP Plant DNA Kit (250)