

# Instructions for Use

## Life Science Kits & Assays

### innuPREP Stool DNA Kit – IPC16

**Order No.:**

845-IPS-3016016 16 reactions  
845-IPS-3016096 96 reactions  
845-IPP-3016016 16 reactions  
845-IPP-3016096 96 reactions  
845-IPP-3016480 480 reactions

IPS = Kit contains prefilled reagent strips for processing individual samples

IPP = Kit contains prefilled reagent plates for running 8 samples in parallel

Note: Prefilled reagent strips and reagent plates can be used in parallel in the InnuPure® C16.

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This documentation describes the state at the time of publishing.  
It needs not necessarily agree with future versions. Subject to change!

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**Manufacturer:**

AJ Innuscreen GmbH  
Robert-Rössle-Straße 10  
13125 Berlin  
Made in Germany!

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**Distribution/Publisher:**

|                      |                        |
|----------------------|------------------------|
| Analytik Jena AG     | Phone +49 3641 77 9400 |
| Konrad-Zuse-Straße 1 | Fax +49 3641 77 767776 |
| 07745 Jena · Germany | www.analytik-jena.com  |
|                      | info@analytik-jena.com |

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# 1 Introduction

## 1.1 Intended use

The innuPREP Stool DNA Kit - IPC16 has been designed for automated isolation of DNA from Gram-positive and Gram-negative bacteria from stool sample as well as for isolation of genomic DNA from the host using the InnuPure® C16 / C16 *touch*. The extraction procedure is based on a new-patented chemistry.

The procedure starts with an external lysis/cleaning step. The lysed samples are transferred into the Reagent Strips or Reagent Plate of the kit, which is already prefilled with all extraction reagents needed for the extraction process. The following extraction process runs automatically on the InnuPure® C16 / C16 *touch*. The extraction process is based on binding of the DNA on surface modified magnetic particles. After washing steps the nucleic acid is eluted from the magnetic particles with RNase-free water and is now ready to use. The extraction chemistry in combination with the InnuPure® C16 / C16 *touch* protocol are optimized to get maximum of yield and quality.

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### CONSULT INSTRUCTION FOR USE











This package insert must be read carefully prior to use. Package insert instructions must be followed accordingly. Reliability of results cannot be guaranteed if there are any deviations from the instructions in this package insert.

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## 1.2 Notes on the use of this manual

For easy reference and orientation, the manual uses the following warning and information symbols as well as the shown methodology:

| Symbol  | Information   |
|---|---|
|    | <b>REF</b><br>Catalogue number.   |
|    | <b>Content</b><br>Contains sufficient reagents for <N> tests.   |
|    | <b>Storage conditions</b><br>Store at room temperature, unless otherwise specified.   |
|    | <b>Consult instructions for use</b><br>This information must be observed to avoid improper use of the kit and the kit components.                                     |
|  | <b>Expiry date</b>  |
|  | <b>Lot number</b><br>The number of the kit charge.  |
|  | <b>Manufactured by</b><br>Contact information of manufacturer.  |
|  | <b>For single use only</b><br>Do not use components for a second time.  |
|   | <b>Note / Attention</b><br>Observe the notes marked in this way to ensure correct function of the device and to avoid operating errors for obtaining correct results. |

The following systematic approach is introduced in the manual:

- The chapters and figures are numbered consecutively.
- A cross reference is indicated with an arrow (e.g. → “Notes on the use of this manual” p. 4).
- Working steps are numbered.

## 2 Safety precautions

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### NOTE

Read through this chapter carefully prior to use to guarantee your own safety and a trouble-free operation.

Follow all the safety instructions explained in the manual, as well as all messages and information, which are shown.

---

All due care and attention should be exercised in handling the materials and reagents contained in the kit. Always wear gloves while handling these reagents and avoid any skin contact! In case of contact, flush eyes or skin with a large amount of water immediately.



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### FOR SINGLE USE ONLY!

This kit is made for single use only!

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### ATTENTION!

Don't eat or drink components of the kit!

The kit shall only be handled by educated personnel in a laboratory environment!

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If the buffer bottles are damaged or leaking, wear gloves and protective goggles when discarding the bottles in order to avoid any injuries. Analytik Jena AG has not tested the liquid waste generated during using the kit for potential residual infectious components. This case is highly unlikely, but cannot be excluded completely. Therefore, all liquid waste must be considered as potentially infectious and must be handled and discarded according to local safety regulation.

Please observe the federal, state and local safety and environmental regulations. Follow the usual precautions for applications using extracted nucleic acids. All materials and reagents used for DNA or RNA isolation should be free of DNases or RNases.



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**ATTENTION!**

Do not add bleach or acidic components to the waste after sample preparation!

---

**NOTE**

Emergency medical information in English and German can be obtained 24 hours a day from:

Poison Information Center, Freiburg / Germany

Phone: +49 (0)761 19 240.

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For more information, please ask for the Safety Data Sheets (SDS).

### 3 Storage conditions

Store lyophilized **Proteinase K** at 4 °C to 8 °C! Divide dissolved **Proteinase K** into aliquots and storage at -22 °C to -18 °C is recommended. Repeated freezing and thawing will reduce the activity dramatically!

All other components of the innuPREP Stool DNA Kit - IPC16 should be stored dry at room temperature (15 °C to 30 °C). When stored at room temperature, the kit is stable until the expiration date printed on the label on the kit box.

Before every use make sure that all components have room temperature. If there are any precipitates within the provided solutions dissolve these precipitates by careful warming.

For further information see chapter "Kit components" p. 10.

## 4 Function testing and technical assistance

The Analytik Jena AG guarantees the correct function of the kit for applications as described in the manual. This product has been produced and tested in an ISO 13485 certified facility.

We reserve the right to change or modify our products to enhance their performance and design. If you have any questions or problems regarding any aspects of the innuPREP Stool DNA Kit - IPC16 or other Analytik Jena AG products, please do not hesitate to contact us.

For technical support or further information in Germany please dial +49 36 41 / 77 94 00. For other countries please contact your local distributor.

## 5 Product use and warranty

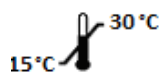
The kit is not designed for the usage of other starting materials or other amounts of starting materials than those, referred to in the manual (→ "Intended use" p. 3) (→ "Product specifications" p. 16). Since the performance characteristics of Analytik Jena AG kits have just been validated for the application described above, the user is responsible for the validation of the performance of Analytik Jena AG kits using other protocols than those described below. Analytik Jena AG kits may be used in clinical diagnostic laboratory systems after the laboratory has validated the complete diagnostic system as required by CLIA' 88 regulations in the U.S. or equivalent regulations required in other countries.

All products sold by the Analytik Jena AG are subjected to extensive quality control procedures and are warranted to perform as described when used correctly. Any problems should be reported immediately.

## 6 Kit components

### IMPORTANT

Store lyophilized **Proteinase K** at 4 °C to 8 °C. Divide dissolved **Proteinase K** into aliquots. Storage at -22 °C to -18 °C is recommended. Repeated freezing and thawing will reduce the activity dramatically!



### STORAGE CONDITIONS

All other components are stored at room temperature.

|   | Σ<br>16                            | Σ<br>96                            | Σ<br>480                           |
|---|------------------------------------|------------------------------------|------------------------------------|
| <b>REF</b>  | 845-IP[S/P]-3016016                | 845-IP[S/P]-3016096                | 845-IPP-3016480                    |
| <b>Lysis Solution SLB</b>                         | 25 ml                              | 125 ml                             | 210 ml                             |
| <b>Proteinase K</b>                               | For 2 × 0.3 ml<br>working solution | For 2 × 1.5 ml<br>working solution | For 7 × 1.5 ml<br>working solution |
| <b>Reagent Strip D*</b><br>(* Depending of order) | 16<br>(pre-filled, sealed)         | 96<br>(pre-filled, sealed)         | --                                 |
| <b>Reagent Plate D*</b><br>(* Depending of order) | 2<br>(pre-filled, sealed)          | 12<br>(pre-filled, sealed)         | 60<br>(pre-filled, sealed)         |
| <b>Prefilter</b>                                  | 16                                 | 2 × 50                             | 10 × 50                            |
| <b>Receiver Tubes</b>                             | 20                                 | 2 × 50                             | 10 × 50                            |
| <b>Filter Tips</b>                                | 2 × 16                             | 2 × 96                             | 10 × 96                            |
| <b>Elution Tubes</b><br>(0.65 ml)                 | 16                                 | 2 × 48                             | 10 × 48                            |
| <b>Elution Caps</b><br>(Stripes)                  | 2                                  | 12                                 | 5 × 12                             |

|                       |  |  |        |
|-----------------------|--|--|--------|
| <b>Elution Strips</b> | 2  | 12   | 5 × 12 |
| <b>Manual</b>         | 1  | 1  | 1      |
| <b>Initial steps</b>  | <b>Proteinase K</b><br>Dissolve Proteinase K by addition of 0.3 ml of ddH <sub>2</sub> O, mix thoroughly and store as described above. | <b>Proteinase K</b><br>Dissolve Proteinase K by addition of 1.5 ml of ddH <sub>2</sub> O, mix thoroughly and store as described above. |        |

### COMPONENTS NOT INCLUDED IN THE KIT

- ddH<sub>2</sub>O for dissolving **Proteinase K**
- 1.5 ml tubes (safe lock)
- 2.0 ml tubes, optional
- RNase A (10 mg/ml), optional
- Lysis Tubes S (Order no: 845-CS-1060050, -100, -250), optional

## 7 Recommended steps before starting

- Ensure that the **Proteinase K** and **has** been prepared according to the instruction (→ "Kit components", p. 10).
- Heat thermal mixer or water bath to 60 °C and 95 °C.
- Centrifugation steps should be carried out at room temperature.
- Invert the Reagent Plate / Reagent Strips for 3–4 times and thump it onto a table to collect the prefilled solutions at the bottom of the wells.
- Avoid freezing and thawing of starting material.

## 8 GHS Classification

| Component                | Hazard contents                                  | GHS Symbol | Hazard phrases                | Precaution phrases  | EUH |
|--------------------------|--|------------|-------------------------------|---|-----|
| Reagent<br>Plate/Strip D | Propan-2-ol<br>50–100 %                          | <br>Danger | 225, 302,<br>314, 336,<br>411 | 101, 102, 103,<br>210,<br>303+361+353,<br>305+351+338,<br>310, 405, 501 | 032 |
|                          | Polyethylene glycol octylphenol ether<br>25–50 % |            |                               |   |     |
|                          | Guanidinium chloride<br>25–50 %                  |            |                               |   |     |
|                          | Ethanol<br>50–100 %                              |            |                               |   |     |
| Proteinase K             | Proteinase, engyodontium album                   | <br>Danger | 315, 317,<br>319, 334,<br>335 | 101, 102, 103,<br>261, 280,<br>305+351+338,<br>342+311, 405,<br>501     |     |

### 8.1 Hazard phrases

- 225 Highly flammable liquid and vapor.
- 302 Harmful if swallowed.
- 315 Causes skin irritation.
- 317 May cause an allergic skin reaction.
- 319 Causes serious eye irritation.
- 334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- 335 May cause respiratory irritation.
- 336 May cause drowsiness or dizziness.
- 411 Toxic to aquatic life with long lasting effects.



## 8.2 Precaution phrases

- 101 If medical advice is needed, have product container or label at hand.
- 102 Keep out of reach of children.
- 103 Read label before use.
- 210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- 261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- 280 Wear protective gloves/protective clothing/ eye protection/face protection.
- 310 Immediately call a POISON CENTER/doctor.
- 405 Store locked up.
- 501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- 342+311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
- 303+361+ 353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- 305+351+ 338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## 8.3 EU hazard statements

- 032 Contact with acids liberates very toxic gas.

## 9 Product specifications

### 1. Starting material:

- Fresh or frozen stool samples (250 µl–300 µl liquid sample)

### 2. Time for isolation:

- Homogenization: approx: 0.5–3 minutes
- Lysis: approx: 45 minutes

| Extraction protocol  | Protocol on In-nuPure®C16 / C16 touch | Time In-nuPure®C16 / C16 touch | Elution volumes |
|--|---------------------------------------|--------------------------------|-----------------|
| Ext_Lysis_200_C16_04/<br>External Lysis 200µl – 05             | 200 µl                                | 55 / 52 min                    | 20–500 µl       |
| Ext_Lysis_200_Fast_C16_04/<br>External Lysis 200µl – Fast – 05 | 200 µl                                | 43 / 41 min                    | 20–500 µl       |

### 3. Typical yield:

- Depending on type and amount of the starting material

## 10 Protocols

### 10.1 Isolation of bacterial DNA from stool samples

---

**NOTE**

Use no more than 250 mg stool sample!

---

1. Weigh approx 250 mg of stool sample (fresh or frozen) into a 2.0 ml reaction tube and add 1 ml Lysis Solution SLB to each stool sample and suspend/homogenize the sample.
- 

**NOTE**

If the sample is liquid pipette 300 µl into the 2.0 ml reaction tube and add 1 ml Lysis Solution SLB.

---

**IMPORTANT NOTE**

Don't centrifuge the stool sample!

---

2. Transfer 200 µl of stool homogenate into a 1.5 ml reaction tube (safe lock) and add:

250 µl Lysis Buffer SLB and

20 µl Proteinase K

Incubate at 60 °C for 30 minutes.

---

**NOTE**

We recommend using a shaking platform (thermal mixer, water bath or another rocking platform) for a continuous shaking of the sample. Vortex the sample optionally 3–4 times during the incubation. No shaking will reduce the lysis efficiency!

---

3. Incubate the sample at 95 °C for 10 minutes.

---

### NOTE

To remove RNA from the sample (optional) add 1–2 µl of RNase A solution (10 mg/ml), vortex shortly and incubate for 5 minutes at room temperature.

---

4. Transfer the lysed sample onto a Prefilter located in a Receiver Tube and centrifuge the tube at 8,000 x g (10,000 rpm) for 1 minute. Discard the Pre-filter.  
**Don't discard the Receiver Tube with the filtrate!**
5. Proceed with automated extraction (→ "Preparing Reagent Plate / Strip for automated extraction", p. 21).

---

## 10.2 Isolation of genomic DNA from the host

---

### NOTE

Use no more than 250 mg stool sample!

---

1. Weigh approx **250 mg** of stool sample (fresh or frozen) into a 2.0 ml reaction tube and add **1 ml Lysis Solution SLB** to each stool sample and suspend/homogenize the sample.
- 

### NOTE

If the sample is liquid pipette 300  $\mu$ l into the 2.0 ml reaction tube and add 1 ml Lysis Solution SLB.

---

### IMPORTANT NOTE

Don't centrifuge the stool sample!

---

2. Transfer **200  $\mu$ l** of stool homogenate into a 1.5 ml reaction tube (safe lock) and add:  
**250  $\mu$ l Lysis Buffer SLB** and  
**20  $\mu$ l Proteinase K**  
Incubate at 60 °C for 30 minutes.
- 

### NOTE

We recommend using a shaking platform (thermal mixer, water bath or another rocking platform) for a continuous shaking of the sample. Vortex the sample optionally 3–4 times during the incubation. No shaking will reduce the lysis efficiency!

---

### NOTE

To remove RNA from the sample (optional) add 1–2  $\mu$ l of RNase A solution (10 mg/ml), vortex shortly and incubate for 5 minutes at room temperature.

---

3. Transfer the lysed sample onto a Pre-filter located in a Receiver Tube and centrifuge the tube at 8,000 x g (10,000 rpm) for 1 minute. Discard the Pre-filter.

**Don't discard the Receiver Tube with the filtrate!**

4. Proceed with automated extraction (→ "Preparing Reagent Plate / Strip for automated extraction", p. 21).

---

### NOTE

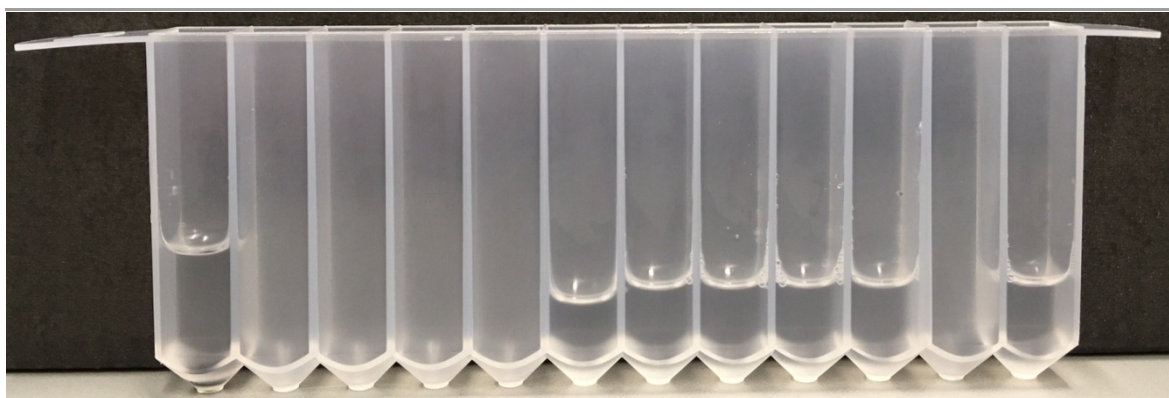
We recommend using a shaking platform (thermal mixer, water bath or another rocking platform) for a continuous shaking of the sample. Vortex the sample optionally 3–4 times during the incubation. No shaking will reduce the lysis efficiency!

To remove RNA from the sample (optional) add 1–2 µl of RNase A solution (10 mg/ml), vortex shortly and incubate for 5 minutes at room temperature.

---

## 11 Preparing Reagent Plate / Strip for automated extraction

### 11.1 General filling scheme of reagent reservoir



|           |                    |            |                  |
|-----------|--------------------|------------|------------------|
| Cavity 1: | Magnetic particles | Cavity 7:  | Washing Solution |
| Cavity 2: | Empty              | Cavity 8:  | Washing Solution |
| Cavity 3: | Empty              | Cavity 9:  | Washing Solution |
| Cavity 4: | Empty              | Cavity 10: | Washing Solution |
| Cavity 5: | Empty              | Cavity 11: | Empty            |
| Cavity 6: | Binding Solution   | Cavity 12: | Elution Buffer   |

### 11.2 Unpacking of Reagent Plate or Reagent Strip

---

#### NOTE

According to transport regulations Reagent Reservoirs are wrapped into plastic bags only when transported by airplane.

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Reagent Plates or Reagent Strips are delivered wrapped into plastic bags for transport protection.

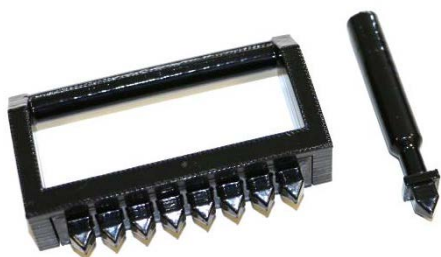
Carefully open the overpack of Reagent Plates by using scissors.



### 11.3 Piercing of sealing foil of Reagent Plate or Reagent Strip

#### NOTE

Before using Reagent Plates or Strips the sealing foil has to be pierced manually. Always wear gloves while piercing of the foil!

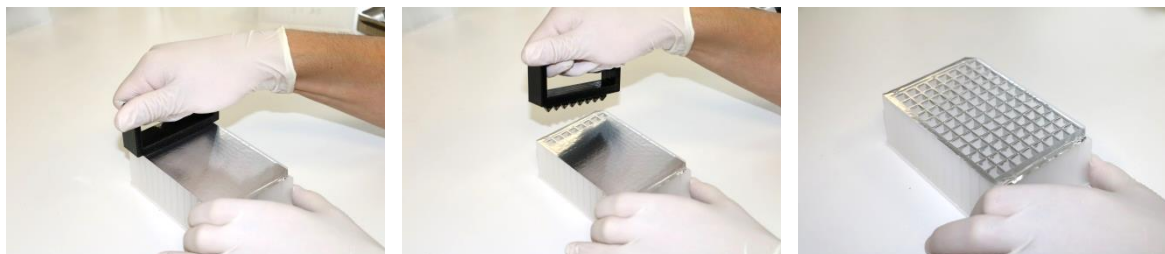


Reagent Plates or Strips are prefilled with extraction reagents and are sealed with a foil. Prior to use this foil has to be pierced manually, by using the piercing tools (single piercer or 8fold piercer).

Keep the Reagent Plates or Strips in a horizontal position to avoid spilling of the reagents while piercing of the foil.

Open all cavities (one row per sample).

#### Using 8 samples in parallel



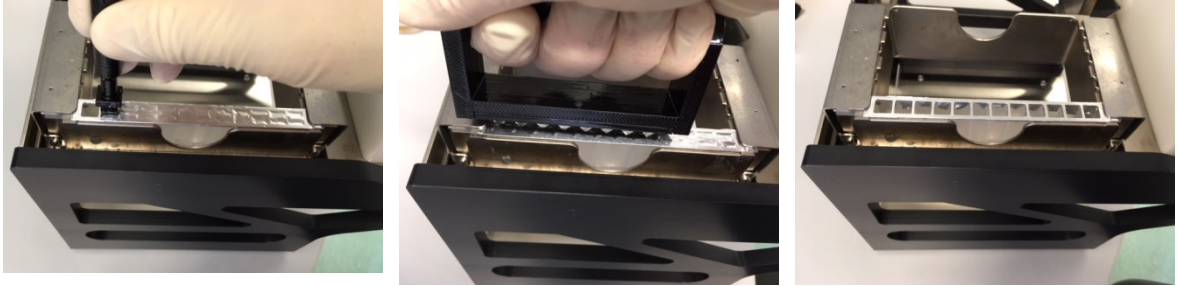
#### Using single samples



## Preparing Reagent Plate / Strip for automated extraction

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### Using Reagent Strips



### **IMPORTANT**

Use single or eightfold piercing tool for opening of all cavities of one row per sample!

---

#### 11.4 Loading the sample to InnuPure® C16 / C16 touch

1. Ensure the foils of Reagent Plate or Reagent strips have been pierced (→ „Preparing Reagent Plate / Strip for automated extraction“ p. 21).
2. Transfer **400 µl** of the **lysed sample** into the **third cavity** of Reagent Strip or Reagent Plate. Avoid carry-over of solid material!

---

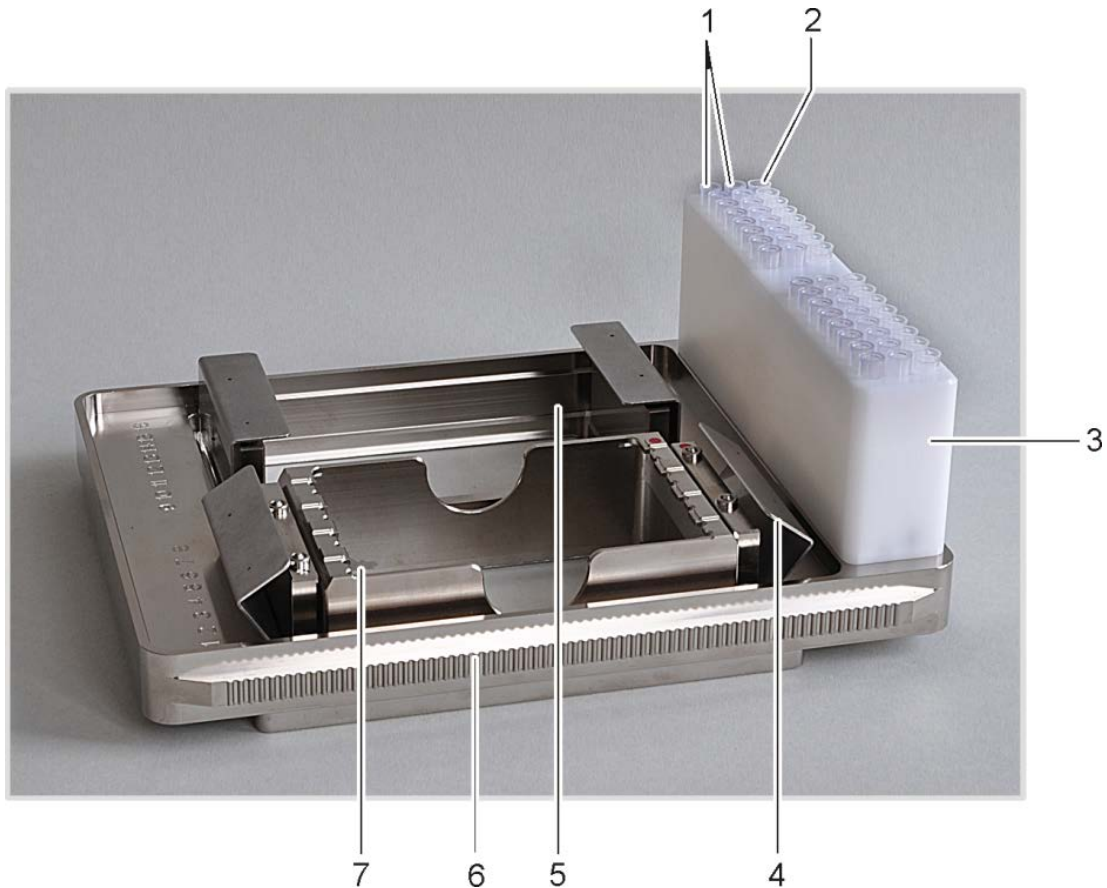
#### NOTE

The sample will be processed using the InnuPure® C16 / C16 *touch*. Please follow the instructions of chapter 12 p. 26.

---

## 12 Automated extraction using InnuPure® C16 / C16 touch

### 12.1 Sample tray of InnuPure® C16 / C16 touch



---

No. 1: Filter tips

---

No. 2: Elution vessels for purified samples

---

No. 3: Tip block

---

No. 4: Holding-down clamp

---

No. 5: Sample block for reagent plates or adapter for reagent strips

---

No. 6: Serrated guide rail (C16 *touch*: non-serrated)

---

No. 7: Adapter for reagent strips

---

## 12.2 Preparing sample tray of InnuPure® C16 / C16 touch

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### NOTE

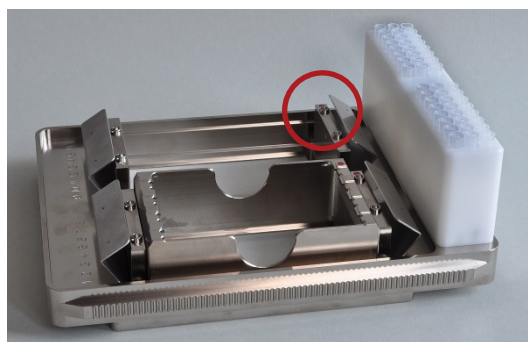
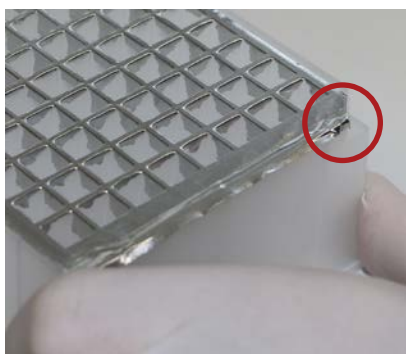
The needed number of Reagent Strips or Reagent Plates is depending on the number of samples, which have to be processed. Don't use more strips as number of samples!

---

1. Place the InnuPure® C16 / C16 *touch* sample tray into the priming station and fold the holding-down clamp at the sample tray upwards!
2. Place the Reagent Plate or an adapter with Reagent Strips into the holder of the sample tray. Using Reagent Plates, the notched corner of the Reagent Plate has to align with the colored dot at the holder. Using adapters and Reagent Strips, the colored dot of the adapter has to align with the colored dot at the holder and Reagent Strips have to be inserted in a way that the "AJ" labels are arranged at the side of the adapter which is more distant from the tip block.

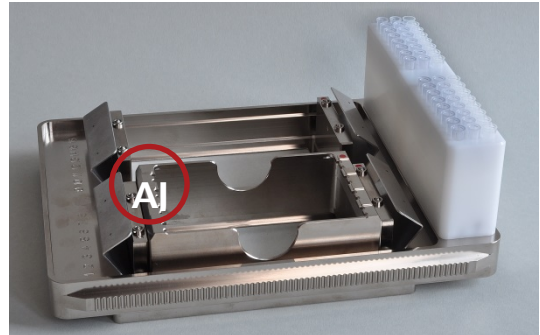
### Reagent Plate

The notched corners of the Reagent Plate must point to the colored dot on the holder.



### Reagent Strips

Place the strips into the adapter. The long tab marked with the label "AJ" must point to the side of the adapter which is more distant from the tip block.



---

### CAUTION

Both holders have to be equipped with a Reagent Plate or Reagent Strips. If applicable use an empty or dummy plate for the respective holder.

3. Fold down the holding-down clamp to prevent the Reagent Plates and Reagent Strips to be pulled out of the holder during the extraction process.
4. For each extracted sample place two filter tips in the smaller drill holes of the tip block.
5. Place the Elution Tubes into the wider drill hole at the edge of the tip block. Empty sample positions do not need to be filled.

---

### NOTE

Especially with the Reagent Strips make sure that for every strip the tips and the elution vessel are in the corresponding positions in the tip block!

---

### IMPORTANT NOTE

It is possible to select between two different elution vessels! For small elution volumes up to 200 µl use Elution Strips (0.2 ml). For high elution volumes up to 500 µl use Elution Tubes (0.65 ml) with corresponding Elution Caps (Strips).

---

### 12.3 Starting the InnuPure® C16

1. Switch on the InnuPure® C16 and wait for the device initialization to complete, which is signaled by a beeping sound.
2. Move the loaded sample tray with the Reagent Strips or Reagent Plates forward into the sample tray adapter on the front of the InnuPure® C16. The serrated rails at the side of the sample tray must protrude into the grooves of the adapter. After pressing lightly against the tip block the sample tray is automatically pulled into the device.



---

#### **IMPORTANT – CAUTION**

##### **Risk of crushing**

Immediately let go of the sample tray once it is being pulled in. Otherwise there is a risk of your hand being crushed.

---

3. After pressing [Select Protocol] choose an appropriate extraction protocol on InnuPure® C16 and press [Start]:

| Extraction procedure                            | Protocol on InnuPure®C16  |
|---|---------------------------|
| Standard<br>(maximum yield, approx. 55 minutes) | Ext_Lysis_200_C16_04      |
| Fast<br>(time-optimized, approx. 43 minutes)    | Ext_Lysis_200_Fast_C16_04 |

4. Enter the recommended elution Volume of 200 µl and press [OK].

---

**NOTE**

It is possible to adjust the volume values from 20 µl to 500 µl.

- 
5. If needed, choose log-file and enter sample ID's, press [OK] or [CANCEL].

---

**NOTE**

It is possible to enter sample ID's and to create a run logfile. Find more detailed information how to start an extraction protocol using InnuPure® C16 on page 37 of the user manual "6.3.5 Using the sample setup tool"!

- 
6. After completion of the protocol press [NEXT] and the sample tray is then automatically moved out of the device.

---

**NOTE**

The chosen protocol is performed by the device and after the protocol is finished, the tray with the purified samples will be moved out after pressing [NEXT] and the message 'Program finished' is shown on the screen of the device!

---



7. Remove the sample tray from the adapter of the InnuPure® C16 and place it back into the priming station.
8. After finishing the extraction protocol, the Elution Tubes contain the extracted DNA. Close the lids and store the DNA under proper conditions.

---

**NOTE**

Store DNA under adequate conditions. We recommend storing the extracted DNA at -22 °C to -18 °C!

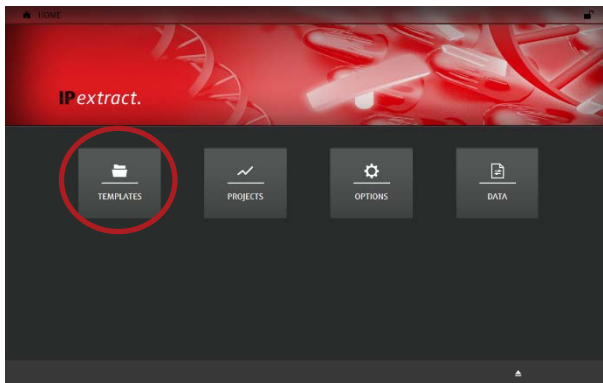
---

## 12.4 Starting the InnuPure® C16 touch

### NOTE

The following instructions describe the necessary steps for the start of the InnuPure® C16 *touch*. For further features and data entry (e.g. opening templates, entering sample setups, saving projects) refer to the manual of the InnuPure® C16 *touch*.

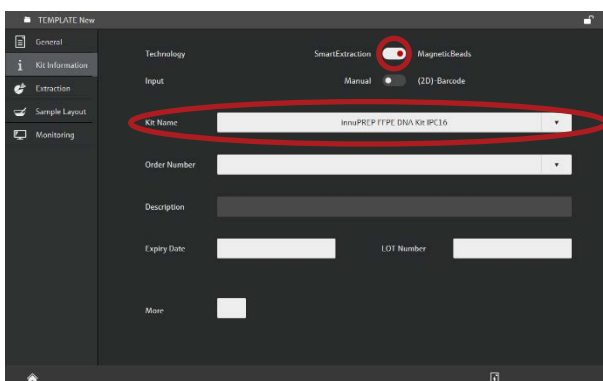
1. Switch on the InnuPure® C16 *touch* and the tablet computer. Wait until the home screen of IPextract is displayed on the tablet screen.



### NOTE

Home screen of IPextract

2. Choose [TEMPLATES]→[New Template]→[Kit-based].
3. Enter optional information in the tab “General”.
4. Choose the tab “Kit Information” and switch the “Technology” to “MagneticBeads”!
5. Choose your desired kit from “Kit Name”!



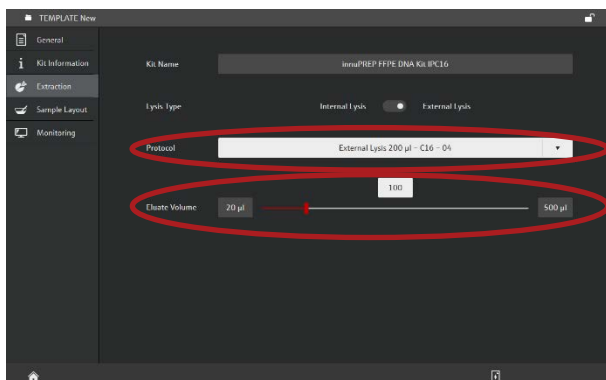
### NOTE

“Kit Information” tab

6. Enter optional information in the tab "Kit Information"
7. Choose the tab "Extraction" and choose the desired "Protocol"

| Extraction procedure                                   | Protocol on InnuPure® C16 touch   |
|--|-----------------------------------|
| <b>Standard</b><br>(maximum yield, approx. 52 minutes) | External Lysis 200 µl - 05        |
| <b>Fast</b><br>(time-optimized, approx. 41 minutes)    | External Lysis 200 µl - Fast - 05 |

8. Adjust your desired "Eluate Volume" using the slider or the text field.

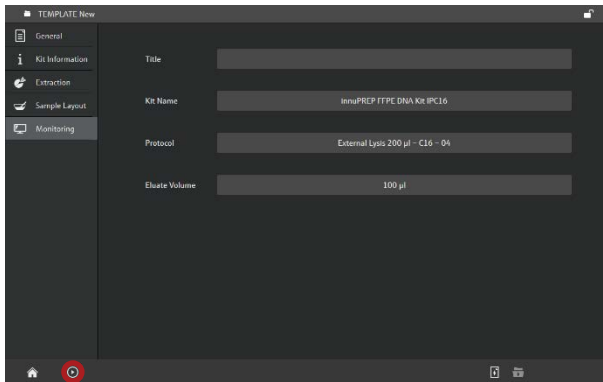


### NOTE

"Extraction" tab

The recommended elution volume is 200 µl.

9. Choose the tab "Monitoring" and start the protocol by tapping the start button.



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**NOTE**  
"Monitoring" tab

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10. Follow the instructions displayed on the tablet screen.
11. Completion of the protocol is indicated by a message on the tablet screen. Follow the instructions on the screen to remove the sample tray from the device.
12. The Elution Tubes contain the extracted DNA. Close the lids and store the DNA under proper conditions.

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### NOTE

Store the DNA under adequate conditions. We recommend storing the extracted DNA at -22 °C to -18 °C!

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## 13 Troubleshooting

| Problem / probable cause                   | Comments and suggestions  |
|--|---|
| <b>Low amount of extracted genomic DNA</b> |   |
| No extracted DNA                           | Ensure that the <b>Proteinase K</b> has been prepared according to the instruction.   |
| Poor quality of extracted DNA              | Avoid carryover of residual sample material when transferring lysed sample to <b>cavity 3</b> of Reagent Plate/Strip.   |
| Insufficient lysis of starting material    | Perform lysis at 50 °C. Ensure to use the required volume of.   |
| Elution volume too high                    | Decrease the elution volume. The suggested elution volume is 200 µl. Please note that lowering the elution volume will not necessarily increase the yield proportional! |
| Eluate exert high viscosity                | Elution volume too low. Increase the elution volume. The suggested elution volume is 200 µl up can be up to 500 µl.   |

## 14 Related Products

| Name  | Amount          | Order No.       |
|---|-----------------|-----------------|
| <b>Nucleic acid purification</b>              |                 |                 |
| innuPREP Proteinase K                         | 6 mg            | 845-CH-0010006  |
|   | 30 mg           | 845-CH-0010030  |
| <b>Automated nucleic acid purification</b>    |                 |                 |
| smart Blood DNA Midi prep (a)                 | 16 rxn (Strips) | 845-ASS-1208016 |
|   | 96 rxn (Strips) | 845-ASS-1208096 |
|   | 16 rxn (Plates) | 845-ASP-1208016 |
|   | 96 rxn (Plates) | 845-ASP-1208096 |
| smart DNA prep (a)                            | 16 rxn (Strips) | 845-ASS-2008016 |
|   | 96 rxn (Strips) | 845-ASS-2008096 |
|   | 16 rxn (Plates) | 845-ASP-2008016 |
|   | 96 rxn (Plates) | 845-ASP-2008096 |
| innuPREP Virus DNA/RNA Kit – IPC16            | 16 rxn (Strips) | 845-IPS-5016016 |
|   | 96 rxn (Strips) | 845-IPS-5016096 |
|   | 16 rxn (Plates) | 845-IPP-5016016 |
|   | 96 rxn (Plates) | 845-IPP-5016096 |
| <b>Products for PCR &amp; Electrophoresis</b> |                 |                 |
| innuTaq DNA Polymerase (5 U/μl)               | 500 U           | 845-EZ-1000500  |
| 50x inNucleotide Mix (1.5 mM)                 | 2x 0.5 ml       | 845-AS-9000100  |
| innuDRY Standard PCR Master Mix               | 100 rxn         | 845-AS-2100100  |
|   | 200 rxn         | 845-AS-2100200  |
| innuDRY qPCR MasterMix Probe                  | 100 rxn         | 845-AS-1900100  |
|   | 200 rxn         | 845-AS-1900200  |



#### Headquarters

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Analytik Jena AG  
Konrad-Zuse-Str. 1  
07745 Jena · Germany

Phone +49 3641 77 70  
Fax +49 3641 77 9279  
info@analytik-jena.com  
www.analytik-jena.com

Pictures: Analytik Jena AG  
Subject to changes in design and scope of delivery as well as further technical development!