



nexttecTM
DNA isolation systems

Special Protocol
DNA Isolation
SALIVA

by nexttecTM 1-Step

- nexttecTM cleanPlate96 -

| | |
|-------------------------|---------|
| Cat. No. 10N.901 | 391091N |
| Cat. No. 10N.902 | 391092N |
| Cat. No. 10N.904 | 391094N |
| Cat. No. 10N.924 | 391096N |

Version 3.0

For research only

Biozym
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Principle

nexttec™ 1-Step is the easiest handling and fastest DNA purification system containing a single buffer system and a one-step DNA purification after lysis.

Proteins, detergents and low molecular weight compounds are retained by the nexttec™ sorbent. DNA passes through the nexttec™ cleanPlate96 during a short, one-step purification procedure.

The obtained DNA is suitable for all common enzymatic reactions (restriction digests, real-time PCR, PCR, genotyping etc.).

Kit contents

The kit contains all necessary reagents for lysis and subsequent DNA purification.

| Component | Art.No. 10N.901 | Art.No. 10N.902 | Art.No. 10N.904 | Art.No. 10N.924 |
|--------------------------------------|--------------------|--------------------|--------------------|--------------------|
| Buffer G | 15 ml | 42 ml | 65 ml | 400 ml |
| Proteinase K | 1.5 ml | 3 ml | 4.5 ml | 27 ml |
| Prep Solution | 40 ml | 100 ml | 150 ml | 2 x 450 ml |
| DTT (optional for special protocols) | 0.5 ml | 0.5 ml | 1 ml | 5 ml |
| nexttec™ cleanPlates96 | 1 | 2 | 4 | 24 |
| nexttec™ deep-well plates | 3 | 6 | 12 | 72 |
| Sealing tapes | 3 | 6 | 12 | 72 |
| Alu sealing tapes | 2 | 4 | 8 | 48 |

nexttec™ service

For extending the application range to samples, which are difficult to lyse by the standard procedure, it is recommended to include optional components in the lysis buffer, to optimize the lysis time or using different lysis volumes (e.g. robotic applications). For detailed information, please get in contact with service@nexttec.biz.


Storage Conditions

During shipment all kit components are stable at room temperature. After arrival, **Proteinase K** and **Prep Solution** must be stored at **+2°C to +8°C**. Store **DTT** after first opening at **-18°C to -25°C**. **Buffer G** and **nexttec™ cleanPlates96** can be stored at **room temperature (+20°C to +25°C)**. If properly stored, see expiration date for the stability of the kit.

Safety Information

Proteinase K Danger H334 P304+P341, P342+P311



| | | | |
|--|---------|------------|---|
| DTT  | Warning | H315, H319 | P280, P305+P351+P338, P321, P362, P332+P313, P337+P313 |
|--|---------|------------|---|

Hazard Statements

- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H315 Causes skin irritation
- H319 Causes serious eye irritation

Precautionary Statements

- P304+P341 IF INHALED: if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
- P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
- P280 Wear protective gloves/protective clothing/eye protection/ face protection
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P321 Specific treatment (see on this label)
- P362 Take off contaminated clothing and wash before reuse
- P332+P313 If skin irritation occurs: Get medical advice/attention
- P337+P313 If eye irritation persists: Get medical advice/attention

When working with chemicals, always wear a suitable lab coat, disposable gloves and protective goggles. For more information please consult the appropriate material safety data sheets (MSDS).

Before starting

- **Equilibrate nexttec™ cleanPlates96**

| | |
|----|--|
| E1 | Add 350 µl Prep Solution onto each well of a nexttec™ cleanPlate96 . Incubate for at least 5 min at room temperature and centrifuge at 350 x g for 1 min or apply vacuum for 30 to 60 sec to remove excess buffer. |
| E2 | Discard the deep-well plate. Place the nexttec™ cleanPlate96 onto a new deep-well plate. Use equilibrated nexttec™ cleanPlates96 or store closed at +2°C to +8°C and use within one week. |

Technical Section

- **Preparation of Lysis Pre-Mixes**

| | Lysis Buffer LG: | 1 sample | 1 plate | 2 plates | 3 plates | 4 plates |
|-----------|---|-----------------|----------------|-----------------|-----------------|-----------------|
| LG | Buffer G | 140 µl | 15.4 ml | 30.8 ml | 46.2 ml | 61.6 ml |
| | Proteinase K | 10 µl | 1.1 ml | 2.2ml | 3.3 ml | 4.4 ml |
| | DTT (optional) | 1.5 µl | 165 µl | 330 µl | 495 µl | 660 µl |
| | Mix by vortexing. Add 150 µl of Buffer LG to each sample (L 2). The Lysis Buffer LG is stable for 1 working day, if stored at +2 °C to +8 °C . | | | | | |

- **Determination of DNA concentration in nexttec™ 1-Step DNA preparations**

We recommend determining the DNA concentration:

- Using the fluorescent dye Picogreen® or similar
- Comparing the fluorescence intensity of DNA bands of unknown concentration with standards, e.g. in ethidium bromide stained agarose gels.

Please notice:

The use of absorption measurement at 260 nm (A_{260}) in a spectrophotometer (e.g. NanoDrop®) for determination of DNA concentration is system related not recommended. For details and possible workarounds for your specific application please contact:

service@nexttec.biz

- **Centrifugation**

For centrifugation at 350x g or 700x g use the settings for relative centrifugal force (RCF) of your centrifuge. Alternatively measure the distance of the nexttec™ cleanPlate96 to the centre of your rotor and calculate the necessary rotations per minute.

(e.g. rpm = $299.07 \times \sqrt{350 / r}$; r=radius in cm)

- **Vacuum Application**

Assemble the vacuum manifold as described in the manual. The flow rate should be between 15 L/min and 150 L/min.

A regulation of vacuum is not necessary.

Product Use Restriction

nexttec™ 1-Step DNA Isolation Kit components were developed, designed and sold **for research purposes only**. They are suitable for in vitro uses only. No claim or representation is intended for use to identify any specific organism or for clinical use.

It is the responsibility of the user to verify the use of the nexttec™ 1-Step DNA Isolation Kit for a specific application as the performance characteristic of this kit has not been verified to a specific organism.

Troubleshooting, FAQ and Special Applications

Product claims are subject to change. Therefore, please, visit our website or contact our technical service team for troubleshooting guide, up-to-date protocols and latest applications on nexttec™ 1-Step products.

Contact Information

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Ordering Information

For ordering information please visit our website www.nexttec.biz .

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