



**Protocol DNA Purification**

**Yeast**

**with 4ward-NA® puriSorb®**

**-4ward-NA® puriColumns -**

**Cat. No. 4w04.010**

**Cat. No. 4w04.050**

**Cat. No. 4w04.250**

**Version 1.3**

**For research use only**

## Principle

**4ward-NA® DNA purification kits (Yeast)** are designed for extraction and purification of DNA from yeast. **4ward-NA® puriSorb® technology** allows the purification in one single step after lysis. Impurities are bound and the purified DNA is recovered in the eluate. The excellent purity of the DNA allows immediate use in all common downstream applications (e.g. PCR).

## Kit contents

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

| Component                    | Art. No.<br>4w04.010 | Art. No.<br>4w04.050 | Art. No.<br>4w04.250 |
|------------------------------|----------------------|----------------------|----------------------|
| Activation Solution (ActivS) | 4.5 mL               | 20.5 mL              | 100 mL               |
| Buffer 4wA (Y1/2)            | 1.6 mL               | 7.7 mL               | 40 mL                |
| Buffer 4wD (Y4)              | 0.6 mL               | 2.9 mL               | 14.5 mL              |
| Protease                     | 0.15 mL              | 0.8 mL               | 3.6 mL               |
| RNase A                      | 0.1 mL               | 0.3 mL               | 1.5 mL               |
| DTT (1,4-Dithio-DL-threitol) | 0.1 mL               | 0.15 mL              | 0.6 mL               |
| 4ward-NA® puriColumns        | 10                   | 50                   | 250                  |
| Waste Tubes                  | 10                   | 50                   | 250                  |
| DNA Tubes                    | 10                   | 50                   | 250                  |

## Storage Conditions

During shipment all kit components are stable at room temperature. After arrival, store chemicals at **+2 °C to +8 °C**. All other components can be stored at room temperature. Please see expiration date of the kit.

### **Safety Information**

|          |         |   |
|----------|---------|---|
| Protease | Danger  | H315, H318, H334, H335<br>P261, P280, P342+P311, P305+P351+P338         |
| DTT      | Warning | H315, H319<br>P280, P305+P351+P338, P321, P362, P332+P313,<br>P337+P313 |

### **Hazard Statements**

|      |  |
|------|--|
| H315 | Causes skin irritation.  |
| H319 | Causes serious eye irritation.   |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation   |

### **Precautionary Statements**

|                |  |
|----------------|--|
| P261           | Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray   |
| P280           | Wear protective gloves/ protective clothing/ eye protection/ face protection.  |
| P342+P311      | If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.   |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P304+P341      | IN INHALED: if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.      |
| 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 contact us for the appropriate material safety data sheets (MSDS).

## Before starting

### Activation of puriSorb® in 4ward-NA® puriColumn

|    |  |
|----|--|
| A1 | Add <b>350 µL Activation Solution</b> onto each well of a <b>4ward-NA® puriColumn</b> . Incubate for at least 5 min at room temperature.<br>Centrifuge at <u>max.</u> <b>350 × g</b> for <b>1 min</b> to remove excess Activation Solution.<br>Discard Waste Tube. |
| A2 | The activated <b>4ward-NA® puriColumn</b> is ready for purification.   |

- Preheat an incubator to 30 °C/ 60 °C.

## Protocol

### Lysis of yeast for DNA purification

1. Transfer **yeast cultures** (up to **1 × 10<sup>9</sup> cells**) into a 1.5 mL or 2.0 mL reaction tube. Centrifuge (**6,000 × g, 1 min**), discard the supernatant.
2. Add **50 µL Buffer 4wD (Y4)**, **5 µL RNase A**, **5 µL Lyticase\*\*** and **0.5 µL DTT** to each cell pellet and resuspend.  
Incubate samples (**30 °C, 40 min**), centrifuge for **10 min** at **2,000 × g**, discard the supernatant
3. Add **132.5 µL Buffer 4wA (Y1/Y2)**, **12.5 µL Protease** and **1.5 µL DTT** to each sample. Incubate samples (**60 °C, 2h**).

\*\* not included

### Purification of DNA using 4ward-NA® puriSorb® (ONE-STEP)

|    |   |
|----|---|
| P1 | Transfer between <b>60 µL</b> and <b>120 µL</b> of the lysate to an activated <b>4ward-NA® puriColumn</b> .<br>Incubate for at least <b>3 min</b> and centrifuge at <u>max.</u> <b>700 × g</b> for <b>1 min</b> . |
|    | The eluate contains the ready-to-use purified DNA.  |

**Troubleshooting, FAQ and Special Applications**

Please contact us for further information about our innovative DNA Purification System using the **4ward-NA® puriSorb®** technology.

**Contact Information**

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**Ordering Information and Prices**

For ordering information and prices please contact: [sales@4ward-na.com](mailto:sales@4ward-na.com).

