Protocol DNA Purification
Plant
with 4ward-NA® puriSorb®

- 4ward-NA® puriColumns -

Cat. No. 4w01.010

Cat. No. 4w01.050

Cat. No. 4w01.250

Version 1.2

For Research Use Only

Principle

4ward-NA® DNA purification kits (Plant) are designed for extraction and purification of DNA from a wide range of plant species. 4ward-NA® puriSorb® technology allows the purification **in one single step** after lysis. Impurities are bound, and the purified DNA shows up in the eluate. The excellent purity of the DNA allows immediate use in all common downstream applications (PCR etc.).

Kit contents

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

Component	Art.No. 4w01.010	Art.No. 4w01.050	Art.No. 4w01.250
Buffer 4wA (F)	4,2 ml	21 ml	84 ml
Protease	0,3 ml	1,5 ml	6 ml
Buffer 4wB (H)	3,0 ml	15 ml	75 ml
Activation Solution (ActivS)	6,0 ml	20 ml	100 ml
SDS	0,1 ml	0,75 ml	3,0 ml
DTT (1,4- Dithio-DL-threitol)	on request	on request	on request
RNase A	on request	on request	on request
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 kit.

Safety Information

Protease 	Danger	H315, H318, H334, H335 P261, P280, P342+P311, P305+P351+P338
DTT 	Warning	H315, H319 P280, P305+P351+P338, P321, P362, P332+P313, P337+P313
SDS 	Danger	H315, H318 P305+P351+P338

Hazard Statements

H315 Causes skin irritation
H318 Causes serious eye damage
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
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 4ward-NA® puriSorb® in 4ward-NA® puriColumns

A1	Add **350 µl Activation Solution** onto each **4ward-NA® puriColumn**. Incubate for at least **5 min** at room temperature. Centrifuge at max. **350 x g** for **1 min** to remove excess Activation Solution. Discard the waste tube.
A2	The activated **4ward-NA® puriColumn** in a DNA tube is ready for purification.

- **Preheat an incubator/ thermomixer to 60 °C**

Protocol

Lysis of plant tissue for DNA purification

1. Transfer **5 pieces of leaf tissue** (e.g. 5 x 5 mm) to a 1,5 ml or 2,0 ml tube.
2. Add **280 µl Buffer 4wA** and **20 µl Protease**.
3. Incubate **(60 °C, 30 min to overnight).**

Lysis of homogenised plant tissue for DNA purification

1. Homogenise/ grind up to **50 mg plant tissue** with **185 µl Buffer 4wB (H)**, (optional 3 µl DTT and 12 µl RNase).
2. Add **70 µl Buffer 4wA (F), 20 µl Protease** and **10 µl SDS**.
3. Incubate **(60 °C, 30 min to overnight)**, if necessary, centrifuge for clear supernatant for DNA purification.

Lysis of plant seeds for DNA purification

1. Homogenise up to **30 mg plant seed** or use up to 30 mg plant seed meal
2. Add **280 µl Buffer 4wA** and **20 µl Protease** and **optional 3 µl DTT**.
3. Incubate (60 °C, 30 min to overnight).

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

P1	Transfer between **60 µl** and **120 µl** of the lysate to an activated **4ward-NA® puriColumn** well. Incubate for at least **3 min** and centrifuge at max. **700 x g** for **1 min.**
	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®.**

Contact Information

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Ordering Information and Prices

For ordering information and prices please contact: support@biozym.com