NAUTIAGENE

Product Information

NautiaZ Plant DNA Extraction Mini Kit

(100/300 prep)

Cat. No. : NGPZ-S100/NGPZ-S300

Sample : 100 mg of fresh plant tissue
50 mg of dry plant tissue

Yield : Up to 50 µg

NGCZ-S100	NautiaZ Culture Cell DNA Extraction Mini Kit (100 prep)
NGCZ-S300	NautiaZ Culture Cell DNA Extraction Mini Kit (300 prep)
NGBZ-S100	NautiaZ Blood DNA Extraction Mini Kit (100 prep)
NGBZ-S300	NautiaZ Blood DNA Extraction Mini Kit (300 prep)
NGBAZ-S100	NautiaZ Bacteria/Fungi DNA Extraction Mini Kit (100 prep)
NGBAZ-S300	NautiaZ Bacteria/Fungi DNA Extraction Mini Kit (300 prep)
NGPZ-S100	NautiaZ Plant DNA Extraction Mini Kit (100 prep)
NGPZ-S300	NautiaZ Plant DNA Extraction Mini Kit (300 prep)
NGTZ-S100	NautiaZ Tissue DNA Extraction Mini Kit (100 prep)
NGTZ-S300	NautiaZ Tissue DNA Extraction Mini Kit (300 prep)
NGST-S100	NautiaZ Stool/Soil DNA Extraction Mini Kit (100 prep)
NGST-S300	NautiaZ Stool/Soil DNA Extraction Mini Kit (300 prep)
NGCF-S100	NautiaZ Cell-Free DNA Extraction Mini Kit (100 prep)
NGPK-S100	NautiaZ Whole Blood DNA Extraction Mini Kit (100 prep)

Contents

	NGPZ-S100T	NGPZ-S100	NGPZ-S300
PZ Buffer	2 ml	55 ml	125 ml, 30 ml
W1 Buffer	2 ml	45 ml	125 ml
W2 Buffer*	300 ul x2	15 ml	25 ml x2
Elution Buffer	1 ml	10 ml	30 ml
GZ Column	4 pcs	100 pcs	300 pcs
Collection Tube	4 pcs	100 pcs	300 pcs
User Manual	1	1	1

*Add 1.2 ml x2 / 60 ml / 100 ml x2 ethanol (96-100%) to W2 Buffer prior to the initial use.

Buffer Preparation

- Add ethanol (96-100%) to the Wash Solution prior to first use

	NGPZ-S100T	NGPZ-S100	NGPZ-S300
W2 Buffer ethanol (96 ~ 100%)	300 ul x2 1.2 ml x2	15 ml 60 ml	25 ml x2 100 ml x2

Important Notes

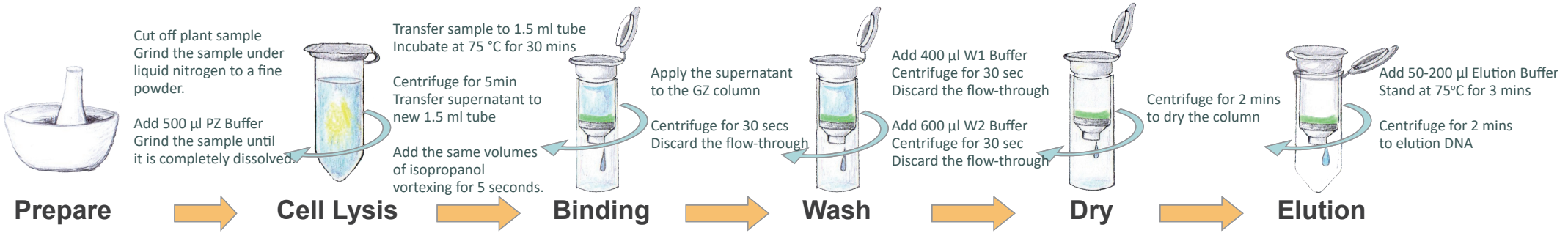
1. Buffers provided in this system contain irritants. Wear gloves and lab coat when handling these buffers.
2. Add ethanol (96- 100 %) to W2 Buffer when first open.
3. Prepare dry baths or water baths before the operation.
4. Resolve any precipitate by warming at 37°C.

Description

The NautiaZ Plant DNA Extraction Mini Kit is designed for rapid extraction of pure genomic DNA from fresh plant tissue or dry plant tissue. Efficiently remove cellular debris and inhibitors, this kit using column-type tube in purification process through three simple steps of binding, washing and then elution for the safe and convenient extraction of high-purity genomic DNA. The entire process can be completed in less than 1 hour without phenol/chloroform, and the final product can be used in PCR or other downstream experiments.

Storage

Store at room temperature.



PURIFICATION PROTOCOLS

STEP	PROCEDURE
1 Sample prepare	Cut off 50-100 mg of fresh or frozen plant tissue or 25-50 mg of dried sample. Grind the sample under liquid nitrogen to a fine powder with pestle and mortar.
2 Cell Lysis	**Add 500 µl PZ Buffer** to the sample with pestle and mortar until it is completely dissolved.
	Transfer grinded sample to a clean 1.5 ml microcentrifuge tube *(not provided)*. Incubate at 75°C for 30 minutes. During incubation, invert the tube every 10 minutes. Preheat Elution Buffer or ddH_2O to 75 °C for elution step.
Optional Step: RNase	*If RNA-free genomic DNA is required, perform this optional step.* **Add 5 µl of RNase** (10 mg/ ml) to sample lysate and mix by vortexing. Incubate at room temperature for 5 mins.
3 Protein Removal	Centrifugeat at 14,000 x g for 5 minutes. Transfer the supernatant to a clean 1.5 ml microcentrifuge tube *(not provided)*.
4 DNA Binding	**Add the same volumes of isopropanol** to the cleared supernatant and mix immediately by vortexing for 5 seconds. Note： For example, add 500 µl isopropanol to 500 µl supernatant.
	Place a **GZ Column** in a Collection Tube. Apply 700 µl of the sample mixture (including any precipitate) from previous step to the **GZ Column**.
	Centrifuge at 14,000 x g for 30 seconds. Discard the flow-through and place GZ Column back in the Collection tube.
5-1 Wash	**Add 400 µl W1 Buffer** to GZ Column. Centrifugeat at 14,000 x g for 30 seconds. Discard the flow-through and place GZ Column back in the Collection tube.
5-2 Wash	**Add 600 µl W2 Buffer** (ethanol added) to GZ Column. Centrifugeat at 14,000 x g for 30 seconds. Discard the flow-through and place GZ Column back in the Collection tube.
6 Dry	Centrifuge at 14,000 x g for 2 minutes to dry the column.
7 Elution	Place GZ Column to a clean 1.5 ml microcentrifuge tube *(not provided)*. **Add 50-200 µl of preheated Elution Buffer** (75°C) into the center of the column matrix. Stand at 75°C for 3 minutes.
	Centrifuge at 14,000 x g for 2 minutes to elute purified DNA.
8 Pure DNA	Store the DNA fragment at 4 °C or -20 °C.