NAUTIAGENE

Product Information

NautiaZ Plant Total RNA Mini Kit

(100/300 prep)

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

Sample : up to 100 mg of Tissue
up to 50 mg of dry plant Tissue

Yield : Up to 30 µg

NGCRZ-S100	NautiaZ Cell/Blood Total RNA Mini Kit (100 prep)
NGCRZ-S300	NautiaZ Cell/Blood Total RNA Mini Kit (300 prep)
NGBRZ-S100	NautiaZ Bacteria/Fungi RNA Mini Kit (100 prep)
NGBRZ-S300	NautiaZ Bacteria/Fungi RNA Mini Kit (300 prep)
NGTRZ-S100	NautiaZ Tissue Total RNA Mini Kit (100 prep)
NGTRZ-S300	NautiaZ Tissue Total RNA Mini Kit (300 prep)
NGPRZ-S100	NautiaZ Plant Total RNA Mini Kit (100 prep)
NGPRZ-S300	NautiaZ Plant Total RNA Mini Kit (300 prep)
NGMRZ-S050	NautiaZ microRNA Mini Kit (50 prep)
NGVN-S100	Nautia Viral Nucleic Acid Extraction Kit (100 prep)
NGVN-S300	Nautia Viral Nucleic Acid Extraction Kit (300 prep)

Ver. 2020-01

Contents

	NGPRZ-S100T	NGPRZ-S100	NGPRZ-S300
PR Buffer	2 ml x2	110 ml	105 ml x3
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
RZ Column	4 pcs	100 pcs	300 pcs
Collection Tube	4 pcs	100 pcs	300 pcs
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*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:

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

Additional Requirements

1. ß - Mercaptoethanol
2. RNase-free microcentrifuge tubes
3. isopropanol
4. ethanol

Important Notes

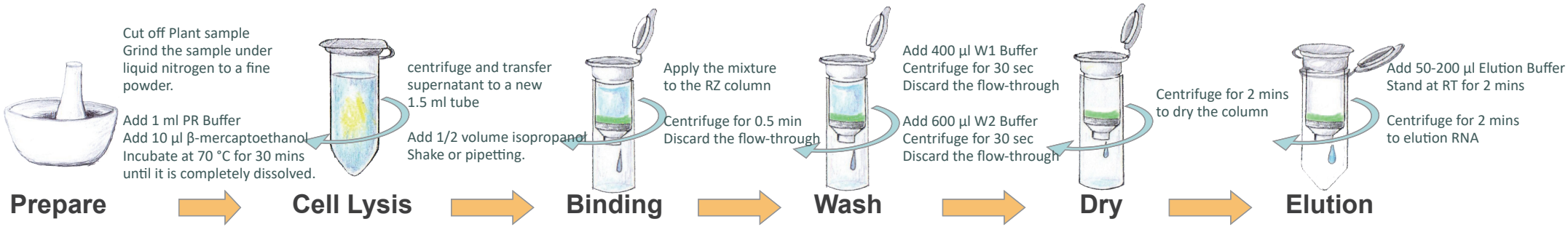
1. Buffer contains chaotropic salt is harmful and irritant agent.
2. Use sterile, RNase-free pipet tips and microcentrifuge tube. Wear a lab coat and disposable gloves to prevent RNase contamination.
3. Make sure the starting sample amount is under the limit.
4. Add ethanol (96-100%) to W2 Buffer prior to the initial use
5. All purification steps should be carried out at room temperature.
6. All centrifugations should be carried out in a table-top microcentrifuge at >12000 × g (10,000-14,000 rpm, depending on the rotor type).

Quality Control

The quality of NautiaZ Plant Total RNA Mini Kit is tested on a lot-to-lot basis. The kits are tested by isolation of total RNA from plant tissue. More than 1 µg of total RNA was quantified with a spectrophotometer and checked by formaldhyde agarose gel analysis. Finally, RT-PCR was used to ensure the quality of total RNA.

Storage

Store at room temperature.



PURIFICATION PROTOCOLS

STEP	PROCEDURE
1 Sample prepare	Cut off up to 100 mg fresh plant tissue or up to 50 mg dry plant tissue. Grind the sample under liquid nitrogen to a fine powder by using a mortar and pestle.
2 Cell Lysis	**Add 1 ml PR Buffer** and **10 µl of ß - Mercaptoethanol** to the sample in the mortar and grind the sample until it is completely dissolved.
	Transfer the sample mixture to a RNase-free microcentrifuge tube and incubate at 70°C for 30 mins. Invert the tube every 10 mins. Centrifuge at 2-8°C at 14,000 x g for 10 mins and transfer the supernatant to a new microcentrifuge tube.
	Add 1/2 volume of isopropanol to the sample and shake vigorously. Place a **RZ column** in Collection Tube.
3 RNA Binding	Transfer all of the sample mixture (up to 700 µl once) to RZ column and centrifuge 30 senconds at 14,000 x g. Discard the flow-through and place RZ Column back in the Collection tube.
4-1 Wash	**Add 400 µl W1 Buffer** to RZ Column. Centrifuge at 14,000 x g for 30 seconds. Discard the flow-through and place RZ Column back in the Collection tube.

STEP	PROCEDURE
Optional Step: DNase	*If DNA-free RNA is required, perform this optional step.* **Add 150 µl W2 Buffer (ethanol added)** into the RZ column. Centrifuge at full speed (16,000 x g) for 30 seconds. Discard the flow-through and place the RZ Column back in the Collection Tube.
	For each isolation reaction , premix **80 µl DNase I Incubation Buffer** with **2 µl DNase I** in a new sterile tube (Do not vortex!). **Add 82 µl of the DNase I solution** into the center of the RZ Column membrane and incubate at room temperature for 15 min.
4-2 Wash	**Add 600 µl W2 Buffer** (ethanol added) to RZ Column. Centrifuge at 14,000 x g for 30 seconds. Discard the flow-through and place RZ Column back in the Collection tube.
5 Dry	Centrifuge at 14,000 x g for 2 minutes to dry the column.
6 Elution	Place RZ Column to a clean 1.5 ml microcentrifuge tube *(not provided)*. **Add 50-200 µl of Elution Buffer** into the center of the column matrix.
	Stand at room temperature for 2 minutes. Centrifuge at 14,000 x g for 2 minutes to elute purified RNA.

STEP	PROCEDURE
7 Pure RNA	Store the RNA fragment at -80 °C.