NAUTIAGENE

Product Information

NautiaZ Tissue Total RNA Mini Kit

(100/300 prep)

Cat.No. ：NGTRZ-S100/NGTRZ-S300
Sample ：30 mg of Tissue
25 mg of Paraffin Embedded 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

	NGTRZ-S100T	NGTRZ-S100	NGTRZ-S300
TR Buffer	2 ml	45 ml	125 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
RZ 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:

	NGTRZ-S100T	NGTRZ-S100	NGTRZ-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. Xylene
3. RNase-free microcentrifuge tubes
4. 70% ethanol

Important Notes

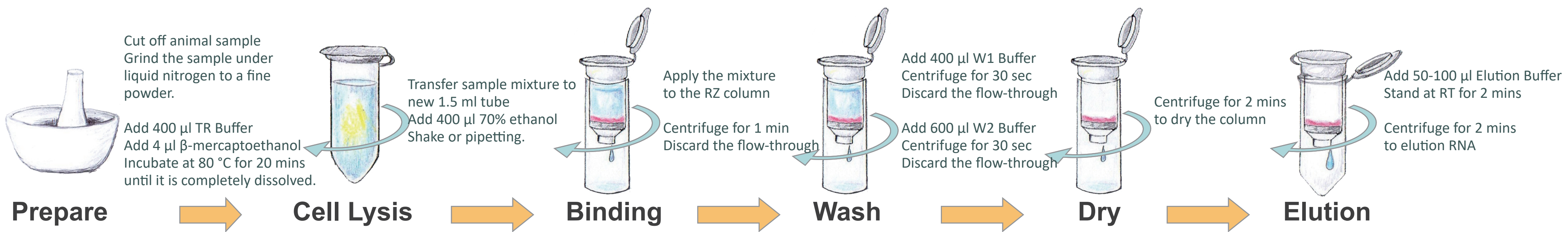
1. Buffer contains chaotropic salt is harmful and irritant agent.
2. Use sterile, RNase-free pipet tips and microcentrifuge tube. Wear a lab coat and disposable gloves to prevent RNase contamination.
3. Make sure the starting sample amount is under the limit.
4. Add ethanol (96-100%) to W2 Buffer prior 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 Tissue Total RNA Mini Kit is tested on a lot-to-lot basis. The kits are tested by isolation of total RNA from animal 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

For Fresh Tissue

STEP	PROCEDURE
1 Sample prepare	Cut off 30 mg of fresh animal tissue and grind the sample using micropestle in a microcenterifuge tube. If sample is frozen, grind the sample under liquid nitrogen to a fine powder with pestle and mortar.

For Paraffin embedded Tissue

STEP	PROCEDURE
1 Sample prepare	Slice up to 25 mg of paraffin-embedded tissue and transfer to a 1.5 ml tube. **Add 1 ml xylene** and vortex vigorously and incubate at room temperature for 10 minutes. Vortex every 2 minutes during incubation.
	Centrifuge 3 minutes at 14,000 x g. Remove the supernatant. Add 1 ml absolute ethanol and mix by inverting.
	Centrifuge 3 minutes at 14,000 x g. Remove the supernatant. Add 1 ml absolute ethanol and mix by inverting.
	Centrifuge 3 minutes at 14,000 x g. Remove the supernatant. Open the tube and incubate at 37°C for 15 minutes.

STEP	PROCEDURE
2 Cell Lysis	**Add 400 µl TR Buffer** and **4 µl β-mercaptoethanol** to the sample. Grind the sample until the sample lysate is clear. Transfer the sample mixture to a RNase-free microcentri-fuge tube and incubate at 80°C for 20 mins.
	Centrifuge 3 mins at 14,000 x g. Transfer the supernatant to a new 1.5 ml tube. Pre-heat the Elution Buffer at 75°C.
3 RNA Binding	**Add 400 µl 70% ethanol** and shake vigorously. Place a **RZ column** in Collection Tube. Transfer the sample mixture (up to 700 µl once) to RZ column and centrifuge 1 minute 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.
Optional Step 1 : 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.
Optional Step 2	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 50-100 µl of preheated Elution Buffer** (75°C) into the center of the column matrix.
	Stand at room temperature for 3 minutes. Centrifuge at 14,000 x g for 2 minutes to elute purified RNA.
7 Pure RNA	Store the RNA fragment at -80 °C.