NAUTIAGENE

Product Information

NautiaZ Tissue DNA Extraction Mini Kit

(100/300 prep)

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

Sample : 30 mg of fresh animal tissue
25 mg of paraffin embedded 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

	NGTZ-S100T	NGTZ-S100	NGTZ-S300
T1 Buffer	1.5 ml	35 ml	95 ml
T2 Buffer	0.5 ml	12 ml	35 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

	NGTZ-S100T	NGTZ-S100	NGTZ-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.

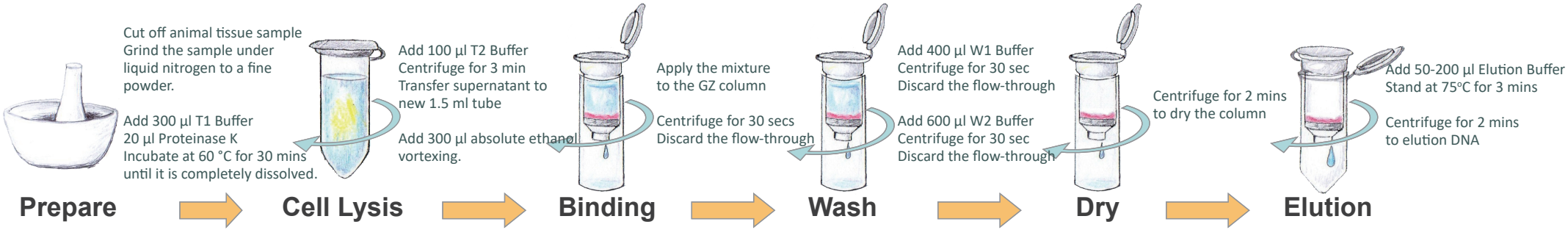
Description

The NautiaZ Tissue DNA Extraction Mini Kit is designed for rapid extraction of pure genomic DNA from fresh animal tissue or paraffin-embedded 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.

Ver. 2020-01



PURIFICATION PROTOCOLS

For Fresh Tissue

STEP	PROCEDURE
1 Sample prepare	Cut off 30 mg of fresh animal tissue. 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 300 µl T1 Buffer** and **20 µl Proteinase K (10mg/ml)** to the sample. Incubate at 60°C for 30 mins until the sample lysate is clear. Invert the tube every 5 minutes during incubation. Pre-heat the Elution Buffer at 60°C.
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	**Add 100 µl T2 Buffer** to the sample and shake vigorously. Centrifuge 3 mins at 14,000 x g. Transfer the supernatant to a new 1.5 ml tube. **Add 300 µl absolute ethanol** and shake vigorously.
4 DNA Binding	Place a GZ column in Collection Tube. Transfer the sample mixture to GZ column and centrifuge 30 seconds at 14,000 x g. Discard the flow-through and place GZ Column back in the Collection tube.
5-1 Wash	**Add 400 µl W1 Buffer** to GZ Column. Centrifuge at 14,000 x g for 30 seconds. Discard the flow-through and place GZ Column back in the Collection tube.
5-2 Wash	**Add 600 µl W2 Buffer** (ethanol added) to GZ Column. Centrifuge 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** 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.