WizPrep™ Total RNA Mini Kit (Tissue)

RUO For Research Use Only

REF W72070

DESCRIPTION

The WizPrep™ Total RNA Mini Kit (Tissue) provides a fast and simple method to isolate total RNA from various animal tissue.
The WizPrep™ Total RNA Mini Kit (Tissue) uses silica-membrane technology to eliminate the cumbersome steps associated with loose resins or slurries. The kit is ready for use and can purify the total RNA from a wide variety of animal tissue samples, and the whole process is completed in less than 20 minutes.
Purified RNA is suitable for RT-PCR, northern blotting, primer extension and cDNA library construction.

KIT CONTENTS

Contents	50 prep	150 prep	Storage
RL Buffer	30 ml	90 ml	Room temp.
W1 Buffer	30 ml	90 ml	Room temp.
W2 Buffer (concentrate)(1)	14 ml	44 ml	Room temp.
RNase-Free Water	5 ml	15 ml	Room temp.
Spin Columns*	50	150	Room temp.
Filter Columns*	50	150	Room temp.
Instruction Manual	1	1	

(1) : Add absolute ethanol to the W2 Buffer prior to initial use (see the bottle label for volume).
* All Spin Columns are sterilized by electron beam.

REAGENTS AND EQUIPMENT TO BE SUPPLIED BY USER

- 96-100% ethanol (to prepare W2 Buffer)
- β-Mercaptoethanol
- 1.5 ml microcentrifuge tubes
- Sterile RNase-free pipette tips and Manual pipettors
- Centrifuge for microcentrifuge tubes
- Equipment for sample disruption and homogenization
- Personal protection equipment (lab coat, gloves, goggles)

KIT SPECIFICATIONS

Parameter	Characteristics
Format	Silca-membrane spin column
Sample materials	< 25 mg tissue
Typical yield	5 - 35 µg (depending on sample)
Elution volume	50 µl
Preparation time	< 20 minutes

QUALITY CONTROL ANALYSIS

In accordance with Wizbiosolutions Inc. ISO 13485-certified Quality Management System, each lot WizPrep™ Total RNA Mini Kit (Tissue) is tested against predetermined specifications to ensure consistent product quality.

PROTOCOL

To check before start

1) Add absolute ethanol to the W2 Buffer prior to initial use (see the bottle label for volume).
2) If a precipitate has formed in RL Buffer, dissolve by incubating at 56°C before use.

1. Preparation animal tissue (< 25 mg), for spleen (< 10 mg)

- Cut up to 25 mgs of animal tissue (or 0.5 cm of mouse tail) then transfer it to a 1.5 ml tube.

NOTE : If tissue has a higher number of cells (e.g. spleen or liver), reduce the starting material to 10 mgs.

- Add **500 µl of RL Buffer, 5 µl of β-mercaptoethanol** and homogenize the sample tissue by grinding.
- Incubate at room temperature for 5 min.
- Transfer the homogenized sample to Filter Column (violet color).
- Centrifuge at 13,000 rpm for 1 min.
- Discard the Filter column.

2. Binding

- Add **400 µl of 70% Ethanol** to filterate (collection tube) and mix by pipetting 5 times.
- Connect Spin Column to Collection tube.
- Transfer 800 µl of the mixture to the Spin Column and centrifuge at 13,000 rpm for 1 min.
- Discard the flow-through and re-connect with the Spin Column.

(Optinal) DNA residue degradation

Add 100µl of DNase I solution (2U/µl) in center of Spin Column matrix and incubate at room temperature for 10 min.

3. Wash

- Add **500 µl of W1 Buffer** to the Spin Column and centrifuge at 13,000 rpm for 1min then discard the flow-throw.
- Add **600 µl of W2 Buffer** (ethanol added) in the Spin Column and centrifuge at 13,000 rpm for 1 min then discard the flow-throw.
- Add **600 µl of W2 Buffer** (ethanol added) in the Spin Column and centrifuge at 13,000 rpm for 1 min then discard the flow-throw.
- Centrifuge at 13,000 rpm for 3 min.

4. Elution

- Connect the Spin Column and new 1.5 ml tube.
- Add **50 µl of RNase-Free Water** into the center of Spin Column and incubate at room temperature for 1 min.
- Centrifuge at 13,000 rpm for 3 min.
- Discard the Spin Column.
- Eluted RNA are stored at −20 °C for a few days, −70 °C for long term storage.

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TROUBLESHOOTING

Problem	Solution and Explanation
The Spin column is clogged	• Inefficient disruption and/or homogenization • Too much starting material • Centrifugation temperature was too low (should be 20-25ºC)
Low yield of RNA	• Insufficient disruption and homogenization • Too much starting material • RNA still bound to RNA spin column membrane • Ethanol carryover
RNA Degradation	• Harvested animal tissue not immediately stabilized • Inappropriate handling of starting material • RNase contamination

SYMBOL GLOSSARY

REF	Catalogue number		Manufacturer
LOT	Batch code	RUO	Research use only
	Temperature limit		Instructions for use
	Use-by date		

ORDERING INFORMATION

Product	Cat No.	Package
WizPrep™ Total RNA Mini Kit (Tissue)	W72070-100	100 prep
	W72070-300	300 Prep

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