

Before Starting

Add 48 ml of absolute ethanol to the PW (only at the first use).

Reagents NOT Provided

- 1. Chloroform
- 2.70% ethanol

RNA Extraction Protocol

- 1. Cutting the tissue into the small pieces on a sterile petri dish by a scalpel to increase tissue lysis in the RL solution. Transfer 20-40 mg of tissue (20 mg for liver or spleen) or 150μ l blood or $1\sim2$ x 10^6 cells (for cell cultures) into a 1.5 ml tube and add $750~\mu$ l of RL solution.
- Pipetting the tissue into and out of the tip to avoid clumps. You can also homgenize hard tissue by hemogenizer on ice. Incubate at room temprature for 5 min.
- 3. Add 150 µl of chloroform to the mixture. Shake it completely for 15 s and incubate for 3 min at room temprature.
- Spin for 12 min at 13,000 rpm at 4 °C.
- Transfer 400 µl of the upper phase into a new 1.5 ml tube. Add 400 µl of 70% ethanol to the mixture and mix them well.
- Trasfer mixture to the spin column. Do NOT touch upper rim of column. Spin for 1 min at 13,000 rpm.
- 7. Pour off the flow-through of collection tube.
- 8. Add 700 µl of PW and spin for 1 min at 13,000 rpm.
- 9. Pour off the flow-through of collection tube. (Optional: repeat step 8 and 9 with 500 μ l of PW to have more pure RNA)
- Spin for 2 min at 13,000 rpm to remove the remaining of the wash buffer. Transfer the spin column to a new 1.5 ml microtube.
- 11. Add 50 μ l of DEPC-treated water, wait 3 min at room temprature. If you want more concentration add less DEPC-treated water (30 μ l).
- Spin for 1 min at 13,000 rpm to elute RNA from the column.
 Store RNA solution at -70 °C.

