Total RNA Extraction Kit

for animal tissue, blood and cell culture

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 150µl blood or 1~2 x 10^6 cells (for cell cultures) into a 1.5 ml tube and add 750 µl of RL solution.
2. 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.
4. Spin for 12 min at 13,000 rpm at 4 ˚C.
5. 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.
6. 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 µl of PW to have more pure RNA)
10. 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 µl of DEPC-treated water, wait 3 min at room temprature. If you want more concentration add less DEPC-treated water (30 µl).
12. Spin for 1 min at 13,000 rpm to elute RNA from the column. Store RNA solution at -70 ˚C.