TANBead® Nucleic Acid Extraction Kit

Tissue RNA Auto Tube

(for use with the Maelstrom 8)

REF M6K2S46

1. Purpose

TANBead® Nucleic Acid Extraction Kit (REF M6K2S46) is employed in RNA isolation from a variety of animal cells or tissues. Automated nucleic acid extraction by TANBead® Automatic Platform for Magnetic System (M8-H Autostage) saves experimental time and enhances consistency and reproductivity of RNA isolation. The isolated nucleic acid samples can be used in subsequent applications, such as real-time PCR, and other clinical tests. It is suitable for laboratories with high-throughput requirement.

Principle: The silicon dioxide layer coated on the magnetic beads can adsorb negative charged molecules in order to purify nucleic acid from samples.
Sample Types: 2~5 x 10^5 cells and 30 ~ 50 mg tissues
Suitable Instrument: Maelstrom 8

2. Kit Components and Storage Conditions

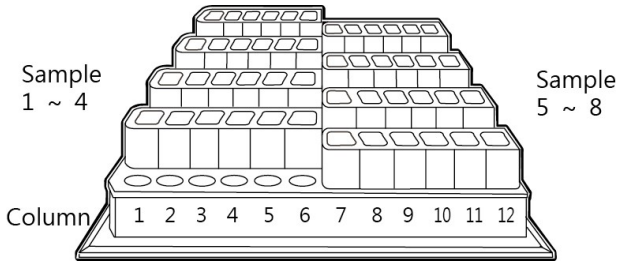
REF M6K2S46		Σ 96 Assays
Auto Tube	96	6 well tube with reagent buffers
Base	2	A rack for 8 Auto Tubes
Lysis Buffer	90 ml x 1	Guanidine salt, Tris buffer, surfactants
Elution Buffer	20 ml	Nuclease-Free Water
Spin tips	96	Spin tip
Protocol	1	Instruction guide for user

Storage Conditions:

1. Components under room temperature (15~35 ℃) can be stored until the expiration date labeled on the box.

Assembled Auto Tubes Content

Column	Buffer Solution	Volume
1/7	Binding Buffer	300 µl
2/8	Washing Buffer 1	800 µl
3/9	Magnetic Beads	800 µl
4/10	Washing Buffer 3	800 µl
5/11	Washing Buffer 3	800 µl
6/12	Elution Buffer	100 µl



3. Product Use Information

1) Do not use expired kits.
2) When room temperature is below 20 ℃. Please warm the Auto Plate/Tube at 42 ~ 60 ℃ for 5 ~ 10 min.
3) Do not shake the reagent vigorously in order to avoid the excess foam formation.
4) Do not expose plate/tube and bottle reagent to air for a long time, to avoid evaporation and changing pH then affecting purification efficiency.
5) All reagents should be transparent and colorless. The existence of colors indicates that the reagent is contaminated. Please replace another plate to continue following procedure.
6) Before use, inspect the completeness of the Auto Plate/Tube and strips.
7) Please wear a mask and disposable gloves when manipulation.
8) Remove the aluminum foil carefully to avoid splashing of the reagent solution.
9) Please use sterile consumables, and make sure that they are all nuclease free.
10) The procedures may not be changed.
11) Because the reagent buffers contain guanidine salts, it is prohibited from washing with any detergents that contain bleach.
12) All reagents are to avoid contact with the eyes, skin, and clothes. If any contact or splashing has occurred, rinse with abundant amount of water.

4. Nucleic acid extraction protocol

Prepare the Assembled Auto Tubes by inserting Auto Tubes into the Base completely.

Preparing samples

a. For cell (2~5 x 10^5 cells)

a-1) Cultured cells are centrifuged at 3000 RPM for 10min and then remove supernatant thoroughly.
a-2) Resuspend the pellet with 500 µl Lysis Buffer, and incubation at RT for 10min.

b. For tissue (30 ~ 50 mg tissues)

b-1) Use 800 µl Lysis Buffer to homogenize tissue sample.
b-2) Mix well and stand for 10 minutes at room temperature.
b-3) Centrifuge at 6000 RPM for 5 min.

Preparing Assembled Auto Tube

1) Carefully remove the aluminum foil from Auto Tube.
2) Load **500 µl lysate** into **column #1/#7**.

Note: The volume ratio of mixture and Binding buffer is about 500 µl : 300 µl. If it is changed, it might be affected the performance.

3) Put Assembled Auto Tubes completely to the autostage of plate. Make sure that the missing corner of base faces toward the lower left.
4) Mount spin tips on Maelstrom 8.
5) Select the program "**6K2-1/7**". The parameters are given in following section.
6) Once the program has ended, take out Assembled Auto Tubes carefully.
7) Use micropipette to transfer the purified nucleic acid from column #6/ #12 to a clean tube.
8) Put the used Auto Tube and strips into the waste recovery can.

5. Program

Program Name: 6K2-1/7					
well 1/7	**well 2/8**	**well 3/9**	**well 4/10**	**well 5/11**	**well 6/12**
800 (μl)	800 (μl)	800 (μl)	800 (μl)	800 (μl)	100 (μl)

Step	Well	Action	RPM	Time(Second)	CW/CCW(Second)	Temperature	Temperature_Control
1	3/9	Mixing	3000	10	0	55	YES
2	3/9	Collection	0	30	0	55	YES
3	2/8	Mixing	3000	30	0	55	YES
4	2/8	Collection	0	30	0	55	YES
5	1/7	Mixing	3000	600	0	55	YES
6	1/7	Collection	0	30	0	55	YES
7	1/7	Collection	0	30	0	55	YES
8	2/8	Mixing	3000	120	0	45	YES
9	2/8	Collection	0	30	0	45	YES
10	3/9	Mixing	3000	120	0	45	YES
11	3/9	Collection	0	30	0	45	YES
12	4/10	Mixing	3000	120	0	45	YES
13	4/10	Collection	0	30	0	45	YES
14	5/11	Mixing	3000	120	0	45	YES
15	5/11	Collection	0	30	0	45	YES
16	5/11	Vapor	0	600	0	45	YES
17	6/12	Mixing	3000	600	0	45	YES
18	6/12	Collection	0	60	0	45	YES
19	6/12	Collection	0	30	0	45	YES
20	5/11	Mixing	3000	30	0	0	NO

6. Explanation of Symbols