TANBead® Nucleic Acid Extraction Kit

Tissue RNA Auto Plate

(for use with the SLA-16/32 and SLA-E132 Series)

REF 6K2A46

1. Purpose

TANBead® Nucleic Acid Extraction Kit (REF 6K2A46) is employed in a variety of animal cells or tissues for RNA isolation, as well as viral nucleic acid purification. This high-performance kit with TANBead® Nucleic Acid Extractor (SLA-16/32, SLA-E132 Series), unlike traditional RNA extraction methods, can handle up to 32 samples. It saves manual steps, reduces human error, the possibility of cross-contamination, and is very suitable for laboratories with large volume of samples.

Principle: The silicon dioxide layer coated on the magnetic beads can absorb negative charged molecular in order to purify nucleic acid from samples.

Sample Types: 2~5 x 10^5 cells and 20 ~ 40 mg tissues

Suitable Instrument: SLA-16/32, SLA-E132 Series

2. Kit Components and Storage Conditions

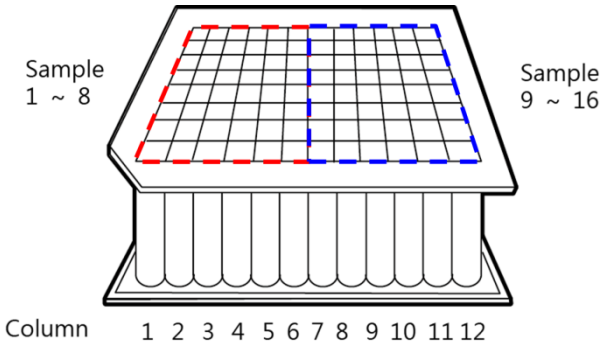
REF 6K2A46		Σ 96 Assays
Auto Plate	6	96 well plate with reagent buffers
Lysis Buffer	90 ml	Guanidine salt, Tris buffer, surfactants
Elution Buffer	20 ml	Nuclease-Free Water
Strip	12	8-channel strip
Protocol	1	Instruction guide for user

Storage Conditions:

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

Auto Plate Content

Column	Buffer Solution	Volume
1/7	-	-
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 should 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. Required but not provided

1) **Isopropanol Alcohol (Molecular biology degrade)**

5. Nucleic acid extraction protocol

Before operating, turn on the warm-up system of TANBead® Nucleic Acid Extractor, if it is equipped with temp. controller, please setting at 45℃.

Preparing samples

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

a-1) Cultured cells are centrifuged at 3000 RPM, 4℃ for 10 minutes and then remove supernatant thoroughly.

a-2) Resuspend the pellet with 500 µl Lysis Buffer, and incubation on ice for 10 minutes.

b. For tissue (20 ~ 40 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 minutes.

Preparing Auto Plate

1) Carefully remove the aluminum foil from Auto Plate.
2) Transfer **450 µl lysate** into **column #1/#7** of Auto Plate.
3) Load **450 µl IPA** into **column #1/#7** of Auto Plate.
4) Push Auto Plate completely to the bottom of plate rack. Make sure that the missing corner faces toward the door panel.
5) Push strips completely to the bottom of strip rack frame.
6) Close the door panel.
7) Select the program "**B10-W4-AUTO**". The parameters are given in following section.
8) Once the program has ended, buzzer shall alarm. Take out Auto Plate carefully.
9) Use micropipette to transfer the purified nucleic acid from column #6/ #12 to a clean tube.
10) Put the used Auto Plate and strips into the waste recovery can.

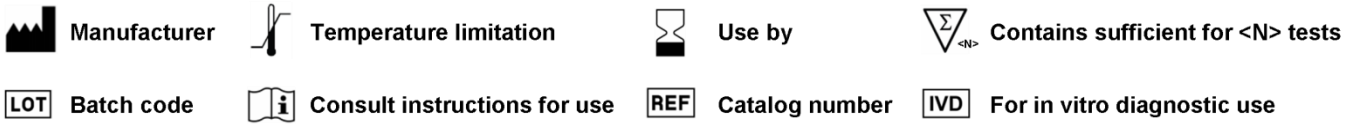
6. Program

Programe Name: B10-W4-AUTO					Model: SLA-16/32, SLA-E132 Series				
Step	**Well**	**Temp(℃)**	**Mixing (M)**	**Collect (S)**	**Rod**	**Mixing Speed**	**Volume (μl)**	**Pause**	**Vapor (M)**
1	3	45	0.1	60	ON	Medium	800	OFF	0
2	2	45	0.5	60	ON	Medium	800	OFF	0
3	1	45	10	60	ON	Medium	900	OFF	0
4	2	45	2	60	ON	Medium	800	OFF	0
5	3	45	2	60	ON	Medium	800	OFF	0
6	4	45	2	60	ON	Medium	800	OFF	0
7	5	45	2	60	ON	Medium	800	OFF	10
8	6	45	10	120	ON	Medium	150	OFF	0
9	5	NA	0.1	0	OFF	Medium	800	OFF	0
10	0	NA	0	0	OFF	Medium	0	OFF	0

7. Result

- Total nucleic acid yield: 2~5 μg

8. Explanation of Symbols



Taiwan Advanced Nanotech Inc.
No.2, Aly. 12, Ln. 81, Longshou St., Taoyuan City,
Taoyuan County 330, Taiwan (R.O.C.)
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