TANBead® RNA Extraction Kit

REF 62GA46 (for use with the SLA-16/32 and SLA-E132 Series)

CE IVD

1. Purpose

TANBead® RNA Extraction Kit (REF 62GA46) is suitable for total RNA extraction from Gram-positive and Gram-negative bacteria. After a simple pretreatment of Lysozyme and DNase, RNA can be purified by TANBead Nucleic Acid Extractor which can not only reduce human operation to prevent sample contamination and RNA degradation but also execute 1~32 samples at the same time. In summary, this RNA Extraction Kit is very suitable for high-throughput research units.

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: Gram-positive and Gram-negative bacteria

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

2. Kit Components and Storage Conditions

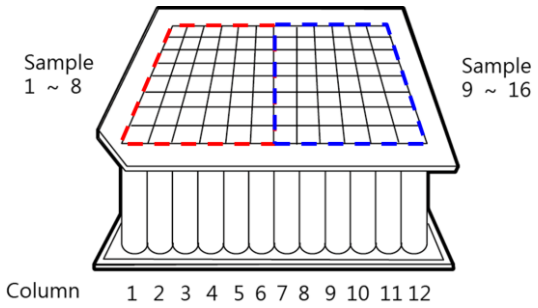
REF 62GA46		Σ 96 Assays
Reagent Plate	6	96 well plate with reagent buffers
Incubation Buffer	25 ml	Tris buffer, surfactants, pH 8.0
Elution Buffer	20 ml	Nuclease-Free Water
Lysozyme	40 mg	Please add 1 ml Elution Buffer before using and store at -20 ℃
DNase I	800 U	4 U/μl DNase I, store at -20 ℃
Strip	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.
2. Repeating of freezing and thawing may cause the activity decay of Lysozyme and Proteinase K.

Reagent Plate Content

Column	Buffer Solution	Volume
1/7	Lysis Buffer	700 μl
2/8	Washing Buffer 1	800 μl
3/9	Magnetic Beads	800 μl
4/10	Washing Buffer 2	800 μl
5/11	Washing Buffer 2	800 μl
6/12	Elution Buffer	130 μl



3. Product Use Information

1) Do not use expired kits.
2) When room temperature is below 20 ℃. Please warm the reagent 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 reagent 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

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

1) Pellet bacterial cells by centrifugation at 8000 RPM for 1min. Pour off the supernatant and remove excess media.
2) Completely resuspend the bacterial cell pellet in **200 μl Incubation Buffer**.
3) Add **10 μl Lysozyme**, **2 μl DNase I**, and mix well.
4) After incubate at 37℃ for 45~60min, transfer mixture into column #1/ #7 of reagent plate.

Note: a. It may be necessary to optimize incubation time, lysozyme and DNase I concentration, according to the bacterial strain.
b. The ratio of Sample / Lysis Buffer is 200 / 700.

5) Push reagent plate completely to the bottom of plate rack. Make sure that the missing corner of reagent plate faces toward the door panel.
6) Push strips completely to the bottom of strip rack frame.
7) Close the door panel.
8) Select the program "**VIRUS-W4-AUTO**". The parameters are given in following section.
9) Once the program has ended, buzzer shall alarm. Take out reagent plate carefully.
10) Use micropipette to transfer the purified nucleic acid from column #6/ #12 to a clean tube.
11) Put the used reagent plate and strips into the waste recovery can.

5. Program

Programe Name: VIRUS-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	1	60	ON	Medium	800	OFF	0
2	2	45	1	0	OFF	Medium	800	OFF	0
3	1	45	20	0	OFF	Low	900	OFF	0
4	2	45	0	60	ON	Medium	800	OFF	0
5	1	45	10	60	ON	Medium	900	OFF	0
6	2	45	2	60	ON	Medium	800	OFF	0
7	3	45	2	60	ON	Medium	800	OFF	0
8	4	45	2	60	ON	Medium	800	OFF	0
9	5	45	2	60	ON	Medium	800	OFF	10
10	6	45	5	120	ON	Medium	150	OFF	0
11	5	NA	1	0	OFF	Medium	800	OFF	0

6. Explanation of Symbols