TANBead® Nucleic Acid Extraction Kit

Gram Bacteria DNA Auto Tube

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

CE

REF 61GS46

1. Purpose

TANBead® Nucleic Acid Extraction Kit (REF 61GS46) provide a simple and convenient method for DNA isolation from Gram-positive and Gram-negative bacteria. The nucleic acid product can be analyzed directly, such as PCR, restriction digestion, PFGE (pulsed-field gel electrophoresis), etc. DNA extraction by TANBead Nucleic Acid Extractor (SLA-16/32, SLA-E132 Series) is fully automatic operation, which can simultaneously extract from 1 to 32 samples. Time and labor-saving DNA 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

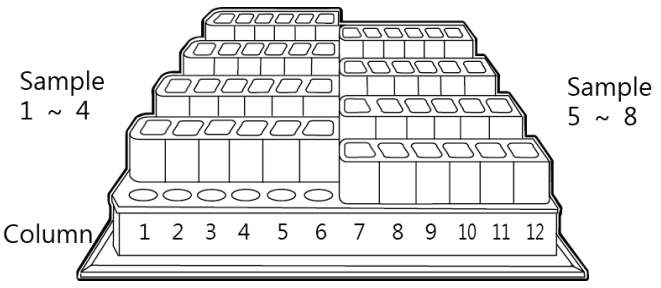
REF 61GS46		Σ 96 Assays
Auto Tube	96	6 well tube with reagent buffers
Base	2	A rack for 8 Auto Tubes
Incubation Buffer	25 ml	Tris buffer, surfactants, pH 8.0
Elution Buffer	20 ml	Nuclease-Free Water
Lysozyme	40 mg	Please add 1 ml Elution Buffer before using and store at -20 ℃
Proteinase K	1 ml	20 mg/ml Proteinase K, store at 4℃
Strip	24	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. The Lysozyme was transported at room temperature. When received, please store at -20 ℃.
3. Repeating of freezing and thawing may cause the activity decay of Lysozyme.
4. The Proteinase K was transported at room temperature. When received, please store at 4℃.

Assembled Auto Tubes Content

Column	Buffer Solution	Volume
1/7	Lysis Buffer	500 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 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

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

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

1) Centrifuge the bacterial culture at 3000 RPM for 2 minutes.
2) After remove supernatant thoroughly, add **200 µl Incubation Buffer**, **10 µl Lysozyme** and **10 µl Proteinase K**.
3) After mix well, stay at 60℃ for 20~30 minutes.
4) Carefully remove the aluminum foil from Assembled Auto Tubes.
5) Use micropipette to transfer the lysate to column **#1/#7** of Assembled Auto Tubes.
6) Push Assembled Auto Tubes completely to the bottom of plate rack. Make sure that the missing corner faces toward the door panel.
7) Push strips completely to the bottom of strip rack frame.
8) Close the door panel.
9) Select the program "**VIRUS-W4-AUTO**". The parameters are given in following section.
10) Once the program has ended, buzzer shall alarm. Take out Assembled Auto Tubes carefully.
11) Use micropipette to transfer the purified nucleic acid from column #6/ #12 to a clean tube.
12) Put the used Auto Tube 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
12	0	NA	0	0	OFF	Medium	0	OFF	0

6. Explanation of Symbols