TANBead® DNA Extraction Kit

REF 619S45 (for use with the SLA-16/32 and SLA-E132 Series)

CE IVD

1. Purpose

TANBead® DNA Extraction Kit (REF 619S45) with TANBead® Nucleic Acid Extractor (SLA-16/32, SLA-E132 Series) simplifies the process of isolating rice DNA from grinding grain and cell lysis to DNA purification completely by automated system. In addition, because TANBead has its own nano-beads for nucleic acid binding with high efficiency, it takes only one single grain of rice for nucleic acid extraction and is ideal for applications such germplasm identification and laboratories of academic research. TANBead® Nucleic Acid Extractor can handle 32 rice samples simultaneously and the automated process can save labor and time by enhancing the extraction efficiency, consistency and reproducibility.

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: one single grain of rice
Suitable Instrument: SLA-16/32, SLA-E132 Series

2. Kit Components and Storage Conditions

REF 619S45		Σ 48 Assays
Reagent Tube	48	6 well tube with reagent buffers
Base	2	A rack for 8 Reagent Tubes
Lysis Buffer 1	25 ml	Tris buffer, surfactants, pH 8.0
Lysis Buffer 2	80 ml	Guanidine salt, Tris buffer, surfactants
Elution Buffer	20 ml	Nuclease-Free Water
Proteinase K	20 mg	Please add 1 ml Elution Buffer before using and store at -20 ℃
Strip	24	8-channel strip
Protocol	1	Instruction guide for user

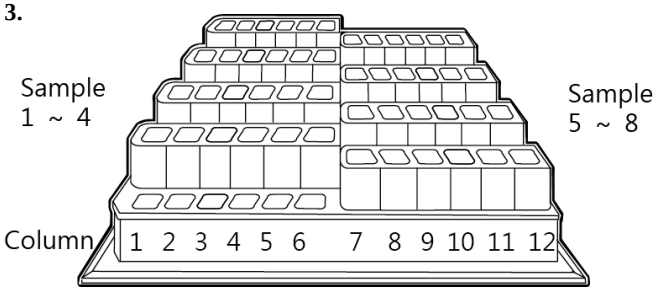
Storage Conditions:

1. Components under room temperature (15~35 ℃) can be stored until the expiration date labeled on the box.
2. The Proteinase K was transported at room temperature. When received, please store at -20 ℃.
3. Repeating of freezing and thawing may cause the activity decay of Proteinase K.

Assembled Reagent Tubes Content

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

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 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. 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 65℃.
Prepare the Assembled Reagent Tubes by inserting Reagent Tubes into the Base completely.

1) Carefully remove the aluminum foil from reagent plate.
2) Use micropipette to load **400 µl Lysis Buffer 1** and **20 µl Proteinase K** into column #6/ #12 of reagent plate.
3) Put one naked rice seed into column #6/ #12 of reagent plate.
4) Push reagent plate combined with **conducting plate** which is attached to column #6/ #12 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 "**DNA-RICE-AUTO**". The parameters are given in following section.
8) The program will stop temporarily and the buzzer alarm after one hour.
9) If Nucleic Acid Extractor is equipped with temp. controller, please set at **45℃**.
10) Carefully pull out reagent plate and pay attention to high temperature of conducting plate.
11) Use micropipette to transfer half of the lysate from column #6/#12 to #5/ #11 and load **750 µl Lysis Buffer 2** into #5/ #6 and #11/#12.

12) Push reagent plate completely to the bottom of plate rack and press “Pause” to go on program.
13) Once the program has ended, buzzer shall alarm. Take out reagent plate carefully.
14) Use micropipette to transfer the purified nucleic acid from column #1/ #7 to a clean tube.
15) Put the used reagent plate and strips into the waste recovery can.

5. Program

Programe Name: DNA-RICE-AUTO					Model: SLA-16/32, SLA-E132 Series				
Step	**Well**	**Temp (℃)**	**Mixing (M)**	**Collect (S)**	**Rod**	**Mixing Speed**	**Volume (μl)**	**Pause**	**Vapor (M)**
1	6	70	60	0	OFF	Medium	600	ON	0
2	6	45	5	0	OFF	Medium	900	OFF	0
3	5	45	5	0	OFF	Medium	900	OFF	0
4	3	45	0	60	ON	Medium	800	OFF	0
5	4	45	1	60	ON	Medium	800	OFF	0
6	6	45	5	60	ON	Medium	900	OFF	0
7	5	45	5	60	ON	Medium	900	OFF	0
8	4	45	3	60	ON	Medium	800	OFF	0
9	3	45	2	60	ON	Medium	800	OFF	0
10	2	45	2	60	ON	Medium	800	OFF	10
11	1	45	5	100	ON	Medium	150	OFF	0
12	2	NA	1	0	OFF	Medium	800	OFF	0

6. Explanation of Symbols