TANBead® Nucleic Acid Extraction Kit

OptiPure Blood DNA Auto Tube

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

CE IVD

REF 61ES46

1. Intended Use

TANBead® Nucleic Acid Extraction Kit (REF 61ES46) has excellent performance and can be applied to most of the blood samples, especially for those viscous blood samples, which are usually difficult to handle, frozen blood stored at -20℃ as an example. Samples are processed through a series of automatic extraction steps. The nucleic acid products have high purity with an extremely low salt content, no contaminants of proteins and inhibitors. It can be directly applied for the downstream tests, such as the polymerase chain reaction (PCR), enzyme reactions, DHPLC (Denaturing high-performance liquid chromatography), and other clinical tests.

Principle: The silicon dioxide layer coated on the magnetic beads can adsorb the negatively charged molecules to purify nucleic acid from samples.
Sample Types: 250~300 µl whole blood, frozen blood or buffy coat
Suitable Instrument: SLA-16/32, SLA-E132 Series

2. Kit Components and Storage Conditions

REF 61ES46 — **96 Assays**

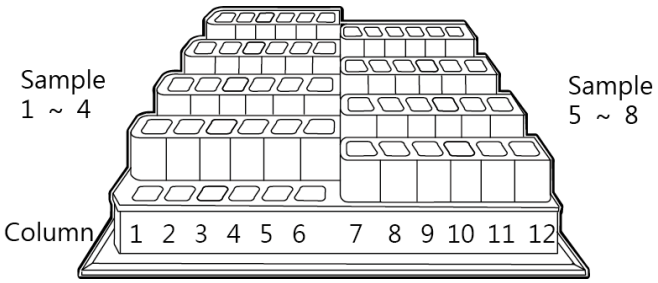
Auto Tube	96	6 well tube with reagent buffers
Base	2	A rack for 8 Auto Tubes
Elution Buffer	1.5 ml	Nuclease-Free Water
Proteinase K	1 ml	Store at 4℃
Strip	24	8-channel strip
Protocol	1	Instruction guide for user

Storage Conditions:

1. Components under room temperature (15~35 ℃) can be stored until the expiration date labeled on the box.
2. The proteinase K is transported at room temperature. When received, please store proteinase K 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. Precaution

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 Auto 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. 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 70℃.

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

1) Push strips completely to the bottom of strip rack frame.
2) Carefully remove the aluminum foil from Assembled Auto Tubes.
3) Add sequentially ① **250~300µl blood** and ② **10µl Proteinase K** into column **#1/ #7** of Auto Plate.
4) Push Assembled Auto Tubes combined with **conducting plate** which is attached to column **#1/ #7** completely to the bottom of plate rack. Make sure that the missing corner faces toward the door panel.
5) Close the door panel.
6) Select the program "**61E**". The parameters are given in following section.
7) Once the program has ended, buzzer shall alarm. Take out Assembled Auto Tubes carefully.
8) Use micropipette to transfer the purified nucleic acid from column #6/ #12 to a clean tube.
9) Discard used reagent tubes and strips.

5. Program

- **SLA-16/32**

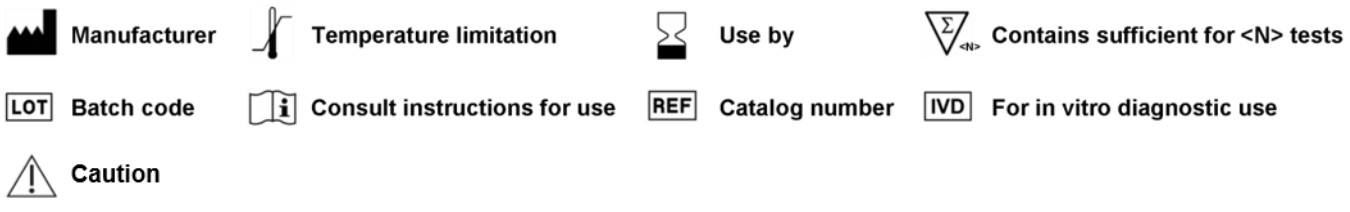
Program Name: 61E				Model: SLA-16/32 Series				
Step	**Well**	**Mixing (M)**	**Collect (S)**	**Rod**	**Mixing Speed**	**Volume (μl)**	**Pause**	**Vapor (M)**
1	3	1	30	ON	Medium	800	OFF	0
2	2	1	0	OFF	Medium	800	OFF	0
3	1	12	0	OFF	Low	900	OFF	0
4	2	0	30	ON	Medium	800	OFF	0
5	1	8	30	ON	Medium	900	OFF	0
6	2	1	30	ON	Medium	800	OFF	0
7	3	1	30	ON	Medium	800	OFF	0
8	4	1	30	ON	Medium	800	OFF	0
9	5	1	30	ON	Medium	800	OFF	5
10	6	5	30	ON	Medium	150	OFF	0
11	5	1	0	OFF	Medium	800	OFF	0
12	0	0	0	OFF	Medium	0	OFF	0

- **SLA-E132**

Program Name: 61E					Model: SLA-E132 Series				
Step	**Well**	**Temp (℃)**	**Mixing (M)**	**Collect (S)**	**Rod**	**Mixing Speed**	**Volume (μl)**	**Pause**	**Vapor (M)**
1	3	70	0.5	30	ON	Medium	800	OFF	0
2	2	70	0.5	0	OFF	Medium	800	OFF	0
3	1	70	12	0	OFF	Low	900	OFF	0
4	2	60	0	30	ON	Medium	800	OFF	0
5	1	60	8	30	ON	Medium	900	OFF	0
6	2	45	1	30	ON	Medium	800	OFF	0
7	3	45	1	30	ON	Medium	800	OFF	0
8	4	45	1	30	ON	Medium	800	OFF	0
9	5	45	1	30	ON	Medium	800	OFF	5
10	6	45	5	30	ON	Medium	150	OFF	0
11	5	NA	0.2	0	OFF	Medium	800	OFF	0
12	0	NA	0	0	OFF	Medium	0	OFF	0

The setting of temperature and mixing time are slightly modified by different versions of SLA extraction machine.

6. Explanation of Symbols



7. European Authorized Representative

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