TANBead® Nucleic Acid Extraction Kit

OptiPure Blood DNA Auto Plate

(for use with the Maelstrom 8)

REF M61EA46

1. Purpose

TANBead® Nucleic Acid Extraction Kit (REF M61EA46) 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, such as frozen blood stored at -20 ℃. Samples are lysed and the nucleic acid will be purified by Maelstrom 8. The nucleic acid products are of high purity with extremely low salt content, no contaminants of proteins and inhibitors, and can be directly applied for following 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 negative charged molecules in order to purify nucleic acid from samples.
Sample Types: 300 µl whole blood, frozen blood or buffy coat
Suitable Instrument: Maelstrom 8

2. Kit Components and Storage Conditions

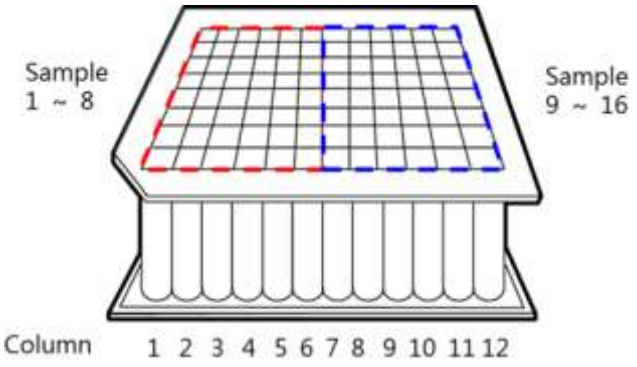
REF M61EA46		**96 Assays**
Auto Plate	6	96 well plate with reagent buffers
Elution Buffer	1.5 ml x 2	Nuclease-Free Water
Proteinase K	20 mg	Please add 1 ml Elution Buffer before using and store at -20 ℃
Spin tips	96	Spin tip
Protocol	1	Instruction guide for user

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.

Auto Plate Content

Column	Buffer Solution	Volume
1/7	Binding Buffer	500 µl
2/8	Washing Buffer 1	800 µl
3/9	Washing Buffer 2 / Magnetic Beads	800 µl
4/10	Washing Buffer 3	800 µl
5/11	Washing Buffer 3	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 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

Mount spin tips on Maelstrom 8.

1) Carefully remove the aluminum foil from Auto Plate.
2) Push Auto Plate combined completely to the bottom of plate rack. Make sure that the missing corner of reagent plate is at the lower left.
3) Add **300 µl blood**, **10 µl Proteinase K** into column #1/ #7.
4) Select the program "**61EZ-1/7**". The parameters are given in following section.
5) Once the program has ended, take out Auto Plate carefully.
6) Use micropipette to transfer the purified nucleic acid from column #6/ #12 to a clean tube.
7) Discard used Auto Plate and spin tips.

5. Program

Program Name:61EZ-1/7	Temp(Celsius):60	Temp Control: YES			
well 1/7	**well 2/8**	**well 3/9**	**well 4/10**	**well 5/11**	**well 6/12**
800 (μl)	800 (μl)	800 (μl)	800 (μl)	800 (μl)	100 (μl)

Step	Well	Action	RPM	Time(Second)	CW/CCW(Second)
1	1/7	Mixing	3000	720	0
2	3/9	Mixing	3000	30	0
3	3/9	Collection	0	30	0
4	2/8	Mixing	3000	60	0
5	2/8	Collection	0	30	0
6	1/7	Mixing	3000	480	0
7	1/7	Collection	0	30	0
8	2/8	Mixing	3000	60	0
9	2/8	Collection	0	30	0
10	3/9	Mixing	3000	60	0
11	3/9	Collection	0	30	0
12	4/10	Mixing	3000	60	0
13	4/10	Collection	0	30	0
14	5/11	Mixing	3000	120	0
15	5/11	Collection	0	30	0
16	5/11	Vapor	0	300	0
17	6/12	Mixing	2700	300	0
18	6/12	Collection	0	30	0
19	6/12	Collection	0	30	0
20	5/11	Mixing	3000	30	0

6. Explanation of Symbols