TANBead® DNA Extraction Kit

REF 615S46 (for use with the SLA-16/32 and SLA-E132 Series)

CE IVD

1. Purpose

TANBead® DNA extraction kit (REF 615S46) provide an effective way of viral DNA extraction from serum. In addition to extracting DNA samples from general common viruses, the kits are effectively improved for the DNA extraction of hepatitis B virus. Serum specimens are processed through a series of automatic extraction steps and finally the high-quality DNA can be applied directly to the following qualitative and quantitative assays. These kits can detect viral DNA from less than 100 IU / ml B virus specimens. They are with excellent gradients, sensitivity and reproducibility.

DNA extraction of Hepatitis B virus is extremely important for molecular diagnostics and clinical research. This kit works with TANBead® Nucleic Acid Extractor (SLA-16/32, SLA-E132 Series), by nano-beads binding nucleic acids, cleaning, washing, and eluting steps to isolate nucleic acids from crude samples. Unlike conventional nucleic acid extraction methods, TANBead® Nucleic Acid Extractor can process as many as 32 samples simultaneously, without time-consuming and labor-taking steps, greatly enhances consistency, accuracy and credibility in medical diagnosis and scientific research.

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: 300 µl serum or PBS suspension
Suitable Instrument: SLA-16/32, SLA-E132 Series

2. Kit Components and Storage Conditions

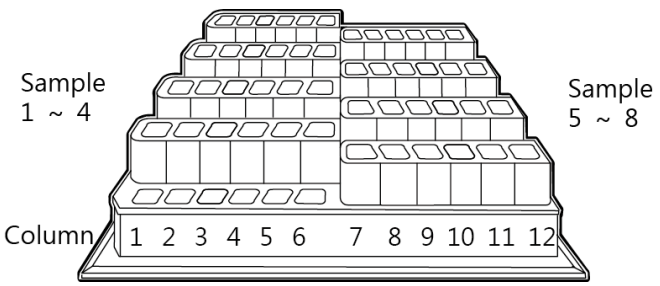
REF 615S46		∑ 96 Assays
Reagent Tube	96	6 well tube with reagent buffers
Base	2	A rack for 8 Reagent Tubes
Elution Buffer	20 ml	Nuclease-Free Water
Proteinase K	1 ml	20 mg/ml Proteinase K, store at 4℃
Strip	24	8-channel strip
Protocol	1	Instruction guide for user

Storage Conditions:

1. Components under room temperature (15~35 ℃) can be stored until the expiration date labeled on the box.
2. The Proteinase K was transported at room temperature. When received, please store at 4℃.

Assembled Reagent Tubes Content

Column	Buffer Solution	Volume
1/7	Lysis Buffer	400 µl
2/8	Washing Buffer 1	800 µl
3/9	Magnetic Beads	800 µl
4/10	Washing Buffer 3	800 µl
5/11	Washing Buffer 3	800 µl
6/12	Elution Buffer	80 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 50℃.

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

1) Pipet **300 µl serum or PBS suspension** into a 1.5 ml tube. Add **10 µl Proteinase K** and mixing. Then incubate for 10~20 min at 56℃.
2) Carefully remove the aluminum foil from Assembled Reagent Tubes.
3) Carefully transfer 310 µl mixture into **column #1/ #7**.

Note: The volume ratio of mixture and lysis buffer is about 300 µl : 400 µl. If it is changed, it might be affected the performance.

4) Push Assembled Reagent Tubes 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 "**VIRUS-W4-AUTO**". The parameters are given in following section.
8) Once the program has ended, buzzer shall alarm. Take out Assembled Reagent Tubes carefully.
9) Use micropipette to transfer the purified nucleic acid from column #6/ #12 to a clean tube.
10) Put the used reagent tubes 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