



# TANBead® DNA Extraction Kit



**REF** 6T2S46 (for use with the SLA-16/32 and SLA-E132 Series)

## 1. Purpose

TANBead® DNA Extraction Kit (**REF** 6T2S46) is dedicated to the isolation of DNA from tissues that are difficult to be lysed. Samples need to be first treated with proteinase K, followed by adding samples onto reagent plate/tube and processed by TANBead® Nucleic Acid Extractor (SLA-16/32, SLA-E132 Series), which is simple and automated by taking up to 32 samples. The protocol dramatically reduces experimental time and enhances consistency and reproductivity of DNA isolation and is suitable for laboratories with large volume of samples.

**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:** 50 ~ 100 mg tissue samples

**Suitable Instrument:** SLA-16/32, SLA-E132 Series

## 2. Kit Components and Storage Conditions

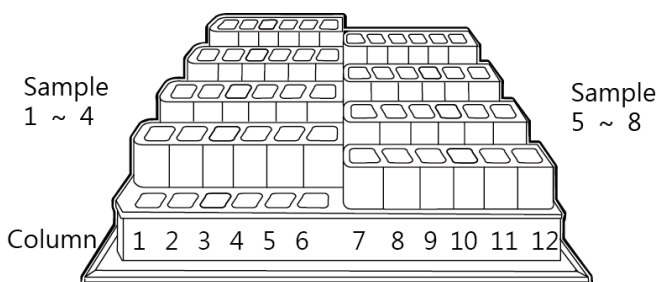
| <b>REF</b> 6T2S46 |       | ▽ 96 Assays   |
|-------------------|-------|---|
| Reagent Tube      | 96    | 6 well tube with reagent buffers                                |
| Base              | 2     | A rack for 8 Reagent Tubes                                      |
| Proteinase K      | 20 mg | Please add 1 ml Elution Buffer before using and store at -20 °C |
| Incubation Buffer | 25 ml | Tris buffer, surfactants, pH 8.0                                |
| Elution Buffer    | 20 ml | Nuclease-Free Water   |
| Strip             | 24    | 8-channel strip   |
| Protocol          | 1     | Instruction guide for user                                      |

### Storage Conditions:

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

### Assembled Reagent Tubes Content

| Column | Buffer Solution                   | Volume |
|--------|-----------------------------------|--------|
| 1/7    | Lysis Buffer                      | 700 µl |
| 2/8    | Washing Buffer 1                  | 800 µl |
| 3/9    | Washing Buffer 2 / 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

- Do not use expired kits.
- When room temperature is below 20 °C. Please warm the reagent plate/tube at 42 ~ 60 °C for 5 ~ 10 min.
- Do not shake the reagent vigorously in order to avoid the excess foam formation.
- Do not expose plate/tube and bottle reagent to air for a long time, to avoid evaporation and changing pH then affecting purification efficiency.
- 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.
- Before use, inspect the completeness of the reagent plate/tube and strips.
- Please wear a mask and disposable gloves when manipulation.
- Remove the aluminum foil carefully to avoid splashing of the reagent solution.
- Please use sterile consumables, and make sure that they are all nuclease free.
- The procedures should not be changed.
- Because the reagent buffers contain guanidine salts, it is prohibited from washing with any detergents that contain bleach.
- 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°C.









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

- Add **200 µl incubation buffer** and **10 µl Proteinase K** into 1.5ml tube.
- Put 50~100mg tissue into 1.5ml tube and mix well.
- After incubation at 56 °C for 2~4 hours or overnight, centrifuged at 8000 RPM for 1 minute.
- Carefully remove the aluminum foil from Assembled Reagent Tubes.
- Use micropipette to load 200 µl lysate into column **#1/ #7** of reagent plate.
- Push reagent plate completely to the bottom of plate rack. Make sure that the missing corner faces toward the door panel.
- Push strips completely to the bottom of strip rack frame.
- Close the door panel.
- Select the program "**L-BNA-PK-AUTO**". The parameters are given in following section.
- Once the program has ended, buzzer shall alarm. Take out Assembled Reagent Tubes.
- Use micropipette to transfer the purified nucleic acid from column #6/ #12 to a clean tube.
- Put the used reagent tube and strips into the waste recovery can.

## 5. Program

| Program Name: L-BNA-PK-AUTO |      |           |            |             | Model: SLA-16/32, SLA-E132 Series |              |             |       |           |
|-----------------------------|------|-----------|------------|-------------|-----------------------------------|--------------|-------------|-------|-----------|
| Step                        | Well | Temp (°C) | Mixing (M) | Collect (S) | Rod                               | Mixing Speed | Volume (µl) | Pause | Vapor (M) |
| 1                           | 3    | 45        | 1          | 90          | ON                                | Medium       | 800         | OFF   | 0         |
| 2                           | 2    | 45        | 1          | 0           | OFF                               | Medium       | 800         | OFF   | 0         |
| 3                           | 1    | 45        | 10         | 0           | OFF                               | Low          | 900         | OFF   | 0         |
| 4                           | 2    | 45        | 0          | 90          | ON                                | Medium       | 800         | OFF   | 0         |
| 5                           | 1    | 45        | 10         | 90          | ON                                | Medium       | 900         | OFF   | 0         |
| 6                           | 2    | 45        | 5          | 90          | ON                                | Medium       | 800         | OFF   | 0         |
| 7                           | 3    | 45        | 5          | 90          | ON                                | Medium       | 800         | OFF   | 0         |
| 8                           | 4    | 45        | 5          | 90          | ON                                | Medium       | 800         | OFF   | 0         |
| 9                           | 5    | 45        | 5          | 90          | ON                                | Medium       | 800         | OFF   | 10        |
| 10                          | 6    | 45        | 10         | 120         | ON                                | Medium       | 200         | OFF   | 0         |
| 11                          | 5    | NA        | 1          | 0           | OFF                               | Medium       | 800         | OFF   | 0         |

## 6. Explanation of Symbols

|  |   |  |  |
|--|---|--|--|
|  <b>Manufacturer</b>          |  <b>Temperature limitation</b>       |  <b>Use by</b>                    |  <b>Contains sufficient for &lt;N&gt; tests</b> |
|  <b>LOT</b> <b>Batch code</b> |  <b>Consult instructions for use</b> |  <b>REF</b> <b>Catalog number</b> |  <b>IVD</b> <b>For in vitro diagnostic use</b>  |