Viral DNA/RNA Extraction Kit Instruction Manual

【Product Specification】

T016H 20T/Box (Pre-filled) 1T/Strip;

T015H 20T/Box (Pre-filled) 5T/Plate × 4plates;

T014H 64T/Box (Pre-filled) 16T/Plate × 4plates

【Product Usage】

The kit is intended for rapidly extracting viral RNA/DNA from serum and other liquid samples. Realizes the high-throughput processing of parallel samples. The whole operation process is safe, convenient and no need for organic reagent. The extracted nucleic acids are highly purified and in quantity, can be widely used in the fields of diagnostics, genomics research, disease detection, food safety and forensic identification, etc.

【Product Principle】

In certain conditions, the Magnetic Beads bind the negatively charged nucleic acid. The Magnetic Beads that have been bound nucleic acids are magnetized, transferred and released via the specialized magnetic rods during the process of nucleic acid extraction, which accomplish automated extraction.

【Kit Contents】

Spec	Components	Quantity	Tests per plate
20T(Single)	Pre-filled 6 strip tube	20	1
20T	Pre-filled 96 deep well plate	4	5
64T	Pre-filled 96 deep well plate	4	16

【Storage & Stability】

All components of the kit should be stored at room temperature and are stable for 12 months.

【Applicable Instrument】

TIANLONG® Libex ,GeneRotex96 Nucleic Acid Extraction System and similar apparatus.

【Sample Requirements】

1.Sample type: Swab and other liquid samples.

2.Sample Storage: Fresh or stored at 4°C for up to 24 hours. For long-term storage, freezing at -20°C is recommended.

【Method of Application】

1.**Reagents Preparation**

Take out the tubes or plates from the kit box ,turn it up and down to suspend the magnetic beads. Then remove the plastic package, gently swing the plates to make the magnetic beads are gathered at the bottom of the wells(Orifice plate centrifuges can also be used at 500rpm×1min). Please carefully tear down the aluminum foil sealing membrane to avoid liquid splash.

2.**Automated Extraction Steps**

a.Add 200μl sample to the 1st and 7th columns of the tubes or plates, respectively.

b.Edit and run the experiment program as follow:

For Libex:

No.	Column	Name	Waiting (sec)	Mixing (sec)	Magnet (sec)	Speed	Volume (μl)	Heating State	Temp (℃)
1	1	Lysis	0	240	90	8	800	closed	0
2	2	Washing1	0	60	60	8	700	Elution	90
3	3	Washing2	0	60	60	8	800	Elution	90
4	6	Elution	60	300	90	8	80	Elution	90
5	2	Release bead	0	60	0	8	600	Closed	0

For GeneRotex96:

No.	Column	Name	Mixing (sec)	Magnet (sec)	Waiting (sec)	Mix Speed	Volume (μl)	Heating State	Temp (℃)
1	1	Lysis	240	180	0	3000	825	closed	0
2	2	Washing1	60	60	0	2000	700	Elution	100
3	3	Washing2	60	60	60	2000	800	Elution	100
4	6	Elution	300	120	0	2500	80	Elution	100

d. After the experiment program is finished, please move the extracted products located at 6^{th} and 12^{th} columns into nuclease-free tubes, stored at -20℃.

【Product Use Limitations】

1. The extraction kit is intended for clinical diagnostic samples, forensic materials and scientific research samples. The concentration and purity of its extraction product are affected by instruments and operators.
2. The extraction kit possesses a special elution buffer, which will affect the absorbance value for the UV-visible spectrophotometer. Therefore, it is not recommended to directly measuring to the concentration and purity of extraction product by UV-visible spectrophotometer.

【Product Properties Index】

1. The extraction kit can high-efficiency extract nucleic acids from cotton swab and other liquid samples, especially low-abundance samples.
2. The coefficient of variation (CV) of intra-assay and inter-assay for the extraction kit is less than 15%.
3. The extraction kit can extract 1~96 samples simultaneously via TIANLONG® Nucleic Acid Extraction System, and the experiment results show good repeatability and high sensitivity

【Important Notes】

Please read the following notes before using the kit

1. The extraction kit is particular used for viral DNA/RNA isolation; therefore, all of experiment supplies, such as pipettes, tubes, tips, must be autoclaved. Operator should wear gloves and masks.
2. Before using the kit, please read the manual and strictly follow the protocol. Clinical samples should be processed on clean bench or in biosafety cabinet.
3. The prepared nucleic acid extraction reagent 2 solution should be avoiding repeated freezing and thawing.
4. The TIANLONG® Libex, GeneRotex 96 Nucleic Acid Extraction System should be disinfected by UV light before use. After the experiment, it is recommended to clean the instrument cabin using 75% ethanol and disinfecting it via UV light about 15mins.
5. Magnetic beads may occasionally appear in the elution buffer. If so, please avoid the magnetic beads while transferring the extracted product.
6. In the absence of exceptional circumstances, it is prohibited to mix the reagents from different batches.
7. After the experiment, all of samples and reagents must be reasonable disposed and other Instruments should be thoroughly cleaned and disinfected.

【Manufacturer】

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