

# **TGuide S32 Magnetic Viral DNA/RNA Kit**

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# TGuide S32 Magnetic Viral DNA/RNA Kit

Cat. no. 4992988

## Kit Contents

Contents	4992988 (96 preps)
Viral DNA/RNA Reagents	6 plates
S32 Tip Comb	12
Proteinase K (10 mg/ml)	2x1 ml
Handbook	1

## Viral DNA/RNA reagent components

Column 1/7	Column 2/8	Column 3/9	Column 4/10	Column 5/11	Column 6/12
Buffer RLCP	MagAttract Suspension GSP1	Buffer PWCP	Buffer PWEP	RNase -Free ddH <sub>2</sub> O	RNase -Free ddH <sub>2</sub> O
300 µl	400 µl	500 µl	600 µl	100 µl	100 µl

## Storage Conditions

This kit can be stored at room temperature (15-30°C) under dry condition for 12 months. If a precipitate has formed in Buffer under 2-8°C, please place the buffer at room temperature or warm at 37°C for 10 min to dissolve the precipitate.

## Product Description

This kit adopts the magnetic beads with high isolation efficiency and a unique buffer system to isolate and purify high quality virus DNA/RNA from serum, plasma, lymph, cell-free body fluid, cell culture supernatant, urine or various virus preservation solution. The unique embedded magnetic beads have a strong affinity for nucleic acids under certain conditions. When the conditions change, the magnetic beads release the adsorbed nucleic acids, which can achieve the purpose of rapid isolation and purification of nucleic acids. The extracted viral DNA/RNA has the advantages of high yield, high purity, stable and reliable quality.

The product is perfectly matched with TGuide S32 Automated Nucleic Acid Extractor. Through special magnetic rod to absorb, transfer and release magnetic beads, the transfer of magnetic beads and nucleic acids is realized with high automation level. The whole experimental process is safe and convenient, and the extracted viral DNA/RNA has high yield, high purity, stable and reliable quality.

The nucleic acid purified by this kit can be applied to various conventional operations, including reverse transcription, PCR, RT-PCR, RT-qPCR and other downstream experiments.

## **Precautions Please carefully read these precautions before using this kit.**

1. Avoid repeated freezing and thawing, otherwise it will reduce the yield of nucleic acid. The samples can be extracted immediately or stored at 4°C for testing, and the storage time shall not exceed 24 hours. For long-term storage, please store at -20°C or -80°C
2. This kit is used for extracting of virus DNA/RNA, so special attention shall be paid to prevent nucleic acid degradation during operation. All utensils, sample dispensers, etc. used shall be dedicated, and disposable consumables such as centrifuge tubes and tips shall be sterilized by autoclaving. Operators shall wear powder-free gloves, masks, etc.
3. Please read the instructions carefully before use, operate in strict accordance with the instructions, and the clinical samples shall be carried out in the Clean Bench or biosafety cabinet.
4. When it is used in combination with TGuide S32 Automated Nucleic Acid Extractor, first sterilize the instrument by ultraviolet. After the experiment, wipe the inside of the extractor with 75% ethanol and sterilize it with UV for 15 minutes.

5. There may be residual magnetic beads during elution, so please avoid aspirating the magnetic beads as much as possible when pipetting samples.
6. Properly dispose the samples and reagent materials, thoroughly clean and disinfect the operation table.

## Protocol

### 1. Preparation of the prepackaged 96-deep-well plate

Take out the prepackaged 96-deep-well plate, mix it upside down for several times to resuspend the magnetic beads. Gently shake the plate to make the reagent and the magnetic bead concentrate at the bottom of the deep-well plate (or centrifuge at 500 rpm for 1 min by the plate centrifuge). Carefully tear off the sealing film before use, avoid the liquid splashing out caused by the vibration of the plate.

### 2. Extraction steps of the TGuide S32 Automated Nucleic Acid Extractor

- 2.1 Add 200  $\mu$ l of sample (the sample needs to be balanced to room temperature) and 20  $\mu$ l of Proteinase K into the 1st and 7th columns of the 96-well plate respectively.
- 2.2 Place the 96-deep-well plate on the 96-deep-well plate base of TGuide S32 Automated Nucleic Acid Extractor, insert the S32 Tip Comb into the magnetic rod sleeve frame slot and ensure that it is snapped in place.
- 2.3 Run the virus DNA/RNA extraction program on TGuide S32 Automated Nucleic Acid Extractor: Open the supporting Windows Pad of the instrument, double-click the "Purification" icon to enter the TGuide S32 control program, click "Run", select "DP604-Virus" program file, and click "Run" button in the lower right corner to start the extraction.

**TGuide S32 Automated Nucleic Acid Extractor program:**

Step	Slot	Name	Waiting time (min)	Mixing time (min)	Adsorption time (sec)	Mixing speed	Volume (μl)	Temperature (°C)	Strong adsorption mode
1	2	Beads transfer	0	1	90	Medium	400	--	Yes
2	1	Lysis 1	0	1	0	Medium	520	--	--
3	1	Lysis 2	4	1	0	Medium	520	--	--
4	1	Lysis 3	4	1	120	Medium	520	--	Yes
5	3	Washing1	0	1	90	Medium	500	--	Yes
6	4	Washing2	0	1	90	Medium	600	--	Yes
7	5	Elution	5	5	120	Slow	100	75	Yes
8	2	Beads Disposal	0	1	0	Medium	400	--	--

2.4 Upon the completion of the automatic program, take out the DNA or RNA samples in the 5th and 11th column, seal them with parafilm and store them at -80°C.