

## HiFi 96 Deep-Well Plate Viral RNA/DNA Miniprep Kit (Magnetic Beads) For Thermo Kingfisher Flex 96

Catalog No.: V4006    Size: 96 preps



### Description

Based on the method of magnetic bead separation and purification, the HiFi 96 Deep-Well Plate Viral RNA/DNA Miniprep Kit (Magnetic Beads) is suitable for the purification of high quality viral nucleic acid from throat swab and nasal swab protected in virus sampling tube of GDSBio, and can improve the sensitivity of nucleic acid detection up to 3 times by increasing the sample amount for nucleic acid extraction.

The kit can be integrated with Thermo Kingfisher Flex 96, an automatic nucleic acid extractor for high-throughput extraction experiments.

The purification system uses superparamagnetic nano-magnetic particles as the matrix, which can adsorb nucleic acids specifically through hydrogen bonds and static electricity under the condition of high concentration of leachate, while proteins and other non-specific impurities are removed by washing. Finally the nucleic acid are eluted with low salt buffer or RNase-free ddH<sub>2</sub>O. The purified nucleic acid can be used for various routine operations, including RT-PCR, RT-qPCR, fluorescence quantitative PCR (qPCR) and other downstream experiments.

### Main components

The kit consists of the following components:

Component	Size
Plate-A (Lysis Buffer/Mag Beads/DS Carrier)	<b>100 µl/well</b>
Plate-B (Wash Buffer)	600 µl/well
Plate-C (Wash Buffer)	600 µl/well
Plate-D (Elution Buffer)	100 µl/well
Proteinase K	1 ml × 2
Magnetic Rod Cover	1 pc

Prepare 1× PBS solution, pH 7.4, in case of need.

### Storage conditions

Store Proteinase K at -20°C, other components at 15-25°C. The kit can be stored for 12 months under suggested conditions.

### Notes

1. Avoid repeated freezing-thawing of samples, otherwise the extracted viral RNA will be degraded and the extracted amount will decrease. The samples can be extracted immediately or stored at 4°C for testing for no more than 24 hours. Long-term storage can be placed at -20°C or -80°C.
2. All operating procedures, if not specified, are carried out at room temperature (15-25°C).
3. When using this kit, please wear lab coat, disposable latex gloves, disposable masks and use RNase-free consumables to avoid RNase pollution to the greatest extent. Prepare your own RNase-free pipette tips, etc.
4. Please read the instructions carefully before use and follow the instructions strictly. Clinical samples should be carried out in the ultra clean table or biosafety cabinet.
5. There may be residual magnetic beads during elution, magnetic beads should be avoided as far as possible when pipetting samples.
6. The virus has a strong ability to infect, a variety of defense measures must be done before the operation. Proper disposal of samples and reagent materials, thorough cleaning and disinfection of the operating table.

### Sample preparation

Throat/nasal swab (with **GDSBio virus preservation solution**): vortex vigorously for 30 sec, take **700  $\mu$ l** for experiment.











### Protocol: Automatic Operation Process of 96 Deep-Well Plate




1. Take out the pre-packaged 96 deep-well plates.
2. Oscillate four angles of the Plate-A to make the Mag Beads suspended.
3. Open the sealing membranes of the 96 deep-well plates.
4. Add 20  $\mu$ l Proteinase K and **700  $\mu$ l** sample to each well of the Plate-A.
5. Place the Magnetic Rod Cover into the Plate-C.
6. Follow the instructions to put the 4 pre-packaged plates into the correct position of the machine.
7. Run the viral nucleic acid extraction program of magnetic bead method “**gdsbio\_HiFi\_96.bdz**”, or refer to the “Sheet of Program Design” below.
8. At the end of the automation process, in the Plate-D is the DNA/RNA solution, sealed with a sealing membrane and stored at -20°C or -80°C.

### Sheet of Program Design

Plate	Operation Process
A	Mixing at 20~55°C for 3 min by vibrating. The digested sample release DNA/RNA to the Mag Beads. Transfer the beads to Plate-B.
B	Wash the beads by vibrating for 1 min, then magnetic absorption for 5 sec. Transfer the beads to Plate-C.
C	Wash the beads by vibrating for 1 min, then magnetic absorption for 5 sec. Transfer the beads to Plate-D.
D	Air dry the beads for 1 min. Elute the beads by vibrating for 1 min, then magnetic absorption for 5 sec. Transfer the beads back to Plate-A.

### [Explanation of Marks]

	The product is used in vitro, please don't swallow it		Please don't reuse it
	Validity		Please read the instruction book carefully before using
	Warning, please refer to the instructions in the annex		Manufacturer
	Temperature scope within which the product is reserved		Batch number
	European union authorization representative		Keep dry

	Avoid overexposure to the sun		Don't use the product when the package is damaged
	The product meets the basic requirements of European in vitro diagnostic medical devices directive 98/79/EC		

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