High-Q™ Magnetic-16 Viral RNA Purification Kit

Ordering info

TBK0230, 32 reactions (2 plates)

TBK0231, 96 reactions (6 plates)

TBK0232, 192 reactions (12 plates)

Description

High-Q™ Magnetic-16 Viral RNA Purification Kit is a new generation of nucleic acid purification kits intended for automated purification systems. It is based on magnetic beads technology for purification of biomolecules. High-Q™ Magnetic beads use is combined with heating steps enhancing sample lysis and elution. The samples are firstly lysed and the nucleic acids are bound to the surface of silica-coated paramagnetic beads in the presence of a chaotropic salt. Viral RNA bound to the beads is then efficiently washed and eluted using a magnetic separation device, removing contaminants. High-Q™ Magnetic-16 Viral RNA Purification Kit allows medium high-throughput RNA purification.

Features

- High throughput, 32 samples in less than 45 minutes.
- Versatile, isolation of nucleic acid of a broad range of virus.
- Highest RNA quality for all downstream applications.

Applications

- Standard and quantitative RT-PCR
- Viral Detection
- Genotyping
- Viral Research

Kit Components

Components	TBK0230	TBK0231	TBK0232
Proteinase K	10 mg	30 mg	2x 30 mg
Resuspension Buffer	400 µL	1 mL	2x 1 mL
High-Q™ Magnetic Beads*	200 µL	200 µL	200 µL
Magnetic Lysis Buffer*	600 µL	600 µL	600 µL
MWB 1*	625 µL	625 µL	625 µL
MWB 2*	625 µL	625 µL	625 µL
MWB 3*	625 µL	625 µL	625 µL
Water*	80 µL	80 µL	80 µL
8-Tip Combs	4	12	24

** volumes by reaction.*

Order Info Kit Components: *Proteinase K (TBZ0305) | High-Q™ Magnetic Beads (TBR0270) | Magnetic Lysis Buffer (TBB0540) | MWB 1, Magnetic Washing Buffer 1 (TBB0541) | MWB 2, Magnetic Washing Buffer 2 (TBB0542) | MWB 3, Magnetic Washing Buffer 3 (TBB0543) | Water (TBB0300) | 8-Tips Combs (TBM0035).*

Storage

Store the kit at 4°C. Store Proteinase K at -20°C. Do not freeze magnetic beads.

The product is shipped at room temperature (stable 1 week) or in blue ice.

Quality Control

Each lot is tested by a functional assay.

Robotic Instrument

Use 8-tip combs robotic platforms such as Tiaris™ 32 Automated System, Ideal 32, Bioer GenePure Pro-32, Biobase BNP32 system, RoboPrep® 32 or equivalent systems.

PROTOCOL

I. SAMPLE PRETREATMENT

This kit is suitable for direct nucleic acid extraction from serum, plasma, ascites, urine, cell culture supernatants, rinse liquid from nasopharyngeal or oropharyngeal swabs and other liquid samples (e.g. virus in UTM or VTM).

II. REAGENTS

- Proteinase K: Store enzyme powder at -20°C for up to 2 years and at 4°C for up to 2 months. For resuspension all Resuspension Buffer to Proteinase K provided. Proteinase K Solution is stable at 4°C for at least 2 months. For long term (> 2months), store resuspended proteinase K at -20°C.
- Magnetic beads MUST be stored at 4°C. If magnetic beads are stored at -20°C they will irreversibly aggregate and they will lose the capacity of binding nucleic acids. Magnetic beads contain 0,02% sodium azide as preservative, so they MUST be handled with care.

III. AUTOMATIZED WORKFLOW

A 96-deep well format is provided. Each plate allows the isolation of 16 samples. Two plates can be run in parallel.

1. Put the 96-well plate at room temperature.
2. Spin the plate.
3. Take off the aluminum foil.
4. Check that plate is properly oriented to dispense samples, that is, that A1 well is at left upper corner and **add 300 µL of samples** and **10 µL Proteinase K** to wells in the columns 1 and 7.
5. Plug 8-strip comb into the rack for tip insertion in the instrument (see manual of instrument for details).
6. Put 96-well plate into the instrument with A1 well at left upper corner and use the following program (see manual of instrument for details) with heating at 65°C in lysis step and elution step (in bold):

STEP	WELL	NAME	WAITING TIME*	MIXING TIME*	MAGNET TIME*	MIXING METHOD	COLLECTION METHOD	VOLUME (µL)
1[a]	**1**	**LYSIS**	**00:00**	**08:00**	**00:00**	**Fast**	**Normal**	**900**
2	6	BEADS	00:00	00:15	00:30	Medium	Strong	200
3	1	BINDING	00:00	08:00	00:35	Fast	Strong	900
4	2	WASH 1	00:00	00:15	00:30	Fast	Strong	625
5	3	WASH 2	00:00	00:30	00:30	Fast	Strong	625
6	4	WASH 3	00:00	00:00	00:05	Slow	Strong	625
7[b]	**5**	**ELUTION**	**02:00**	**04:00**	**00:35**	**Fast**	**Normal**	**80**
8	6	DISCARD	00:00	00:30	00:00	Slow	Normal	200

** minutes: seconds* [a] *Lysis Heat Stop in step 2* [b] *Elution Heat Start step 7*

7. Once the program has finished, recover eluted RNA from each well on columns 5 and 11. Store RNA at -20°C and make aliquots to avoid multiple freeze/thaw cycles.