High-Q™ Spin-Columns Viral RNA Purification Kit

Ordering info

TBK0210, 3 reactions (sample)

TBK0211, 50 reactions

TBK0212, 100 reactions

TBK0213, 200 reactions

Description

High-Q™ Spin-Columns Viral RNA Purification Kit is an optimized kit to obtain viral RNA from cell-free samples. In the presence of a chaotropic salt, viral RNA selectively binds to High-Q™ silica-membrane columns. While the RNA remains attached, a series of quick wash and spin steps efficiently remove contaminating cellular components. Finally, the viral RNA is released using a low-salt elution. The procedure includes the use of RNA carrier to improve the purification yield. Suitable for a broad range of viruses and sources.

Features

- Optimized to obtain high RNA quality A260/A280 ~1.9-2.0.
- No phenol extraction.
- Fast and easy protocol.
- Include protocols for a range of viral infected biological material.
- This process eliminates RNA precipitation and organic solvent extractions.

Applications

- Viral detection and quantitation.
- Genotyping.
- Standard PCR.
- RT-PCR and RT-qPCR.

Kit Components

Components	TBK0211	TBK0212	TBK0213
Spin Columns & Collection Tubes	50	100	200
RNA Carrier (4 µg/ µL)	80 µL	150 µL	300 µL
BRNA Buffer	30 mL[a]	60 mL[a]	120 mL[a]
BRNA-1 Buffer	20 mL[b]	35 mL[c]	65 mL[d]
WB2 Buffer	12 mL[e]	24 mL[f]	45 mL[g]
Water, RNAse free	5 mL	10 mL	10 mL

Order Info Kit Components: *Spin Columns & Collection Tubes (TBM0012) | RNA Carrier 4 µg/ µL (TBR0262) | BRNA Buffer (TBB0535) | BRNA-1 (TBB0539) | WB2 Buffer (TBB0512) | Water RNAse free (TBB0303).*

Before its use:

[a] Add 50 µL RNA Carrier for each 20 mL of BRNA Buffer.

[b] Add 12 mL absolute ethanol and mix well.

[c] Add 21 mL absolute ethanol and mix well.

[d] Add 39 mL absolute ethanol and mix well.

[e] Add 48 mL absolute ethanol and mix well.

[f] Add 96 mL absolute ethanol and mix well.

[g] Add 180 mL absolute ethanol and mix well.

Storage

Store the kit at 25 °C and RNA Carrier at -20 °C.

Quality Control

All components are tested by a functional assay.

Material required (not supplied)

- Ethanol (CAS 64-17-5)
- Proteinase K (20 mg/mL) (TBZ0308)
- PBS 1x pH=7.4 (TBB0360)

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PROTOCOL

¡ Wear gloves at all times during RNA preparation and change it frequently!

I. SAMPLE PREPARATION

Saliva: Add **15 µL Proteinase K** (20 mg/mL) to **285 µL Saliva**. Mix well by vortex. Incubate at 65°C, 5 minutes.

Tissue: Weight up to **100 mg tissue**. Cut in small pieces and homogenize.

Swab w/o preservation solution: Add **500 µL PBS 1x pH=7.4** to the swab containing tube. Incubate at room temperature, 15 minutes. Shake vigorously and squeeze the swab against tube walls.

Other Samples: Viscous samples can be treated with proteinase K and incubated at 65°c, 15-20 minutes.

An homogeneous sample is essential before RNA Purification steps.

II. RNA PURIFICATION

1. Transfer **200 µL Sample** to a 1.5 mL Tube and add **560 µL BRNA Buffer with RNA Carrier**. Mix vigorously by vortex.
2. Incubate at room temperature, 10 minutes.
3. Add **560 µL Absolute Ethanol** and mix well.
4. Place a Spin Column into a Collection Tube and transfer the mixture into the spin column reservoir using a pipette.
5. Centrifugate at 13,000 g, 1 minute and discard the flow-through.
6. Place back the reservoir into the Collection Tube.
7. Add **500 µL BRNA-1 Buffer**.
8. Centrifugate at 13,000 g, 1 minute and discard the flow-through.
9. Add **500 µL WB2 Buffer.**
10. Centrifugate at 13,000 g, 1 minute and discard the flow-through.
11. Add **500 µL WB2 Buffer.**
12. Centrifugate at 13,000 g, 1 minute and discard the flow-through.
13. To remove residual ethanol, rotate the tubes 180° in the centrifuge and centrifugate again at 13.000 g, 3 minutes.
14. Place the reservoir into a fresh 1.5 mL tube.
15. Add **50 µL EB Buffer** or **Water, Molecular Biology Grade** (pre-heated at 70°C) on top of the silica membrane.
16. Incubate at room temperature for 2 minutes.
17. Centrifugate at 13,000 g for 1 minute to collect RNA in eluate.
18. Store at -80°C.

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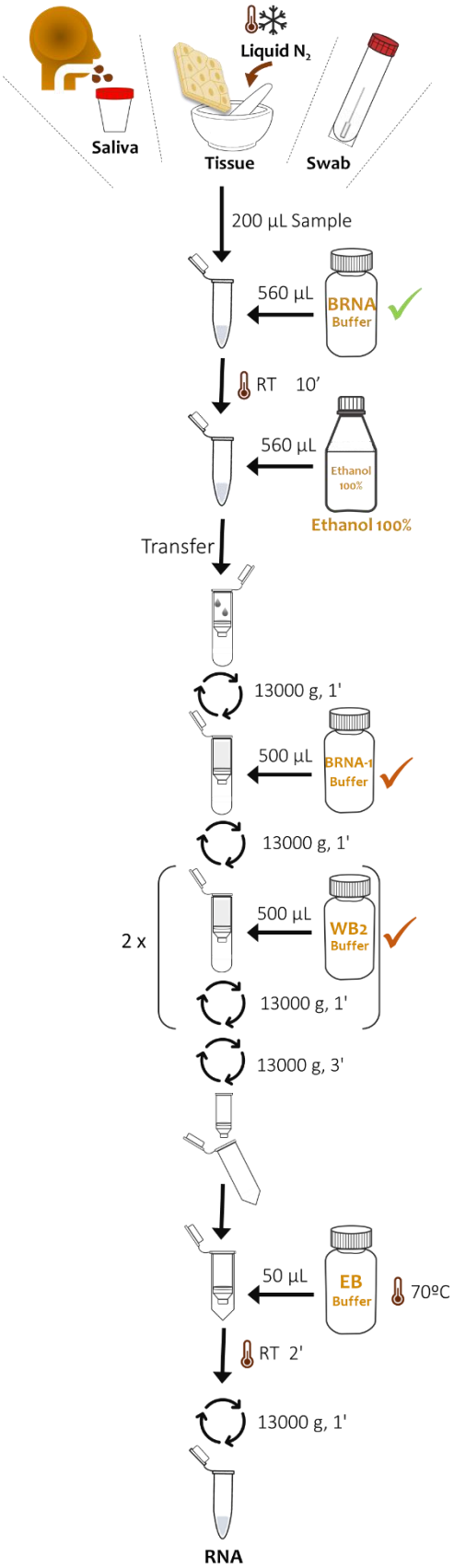
FLOWCHART PROCEDURE



✓ *RNA Carrier has been added.*

✓ *Ethanol has been added.*

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