Product information

BIO BASIC
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EZ-10 Spin Column COVID-19 Viral RNA Extraction Kit

Catalog #: V T 9200
Size: 50 preps, 250 preps, 500 preps
Storage: 4°C to 25°C*

*: Product will be shipped at ambient temperature. Once recons tuted, carrier RNA to be stored at -20°C, remaining kit components to be stored at 4°C to 25°C. Components have a one year expira on from me of purchase.

Product Description:

The kit is **especially designed for COVID-19 (SARS-CoV-2)**. It simplifies isola on of COVID-19 viral RNA from cell-free body fluids with fast spin-column format. No phenol/chloroform extrac on is required. Viral RNA binds specifically to the silica membrane while contaminants are removed in the flow-through. PCR inhibitors such as divalent ca ons and proteins are completely removed in two efficient wash steps, leaving pure viral R NA to be eluted i n RN ase-free Wa ter. Purified RNA is ready to use in RT-PCR, Nort hern blo ng or other downstream applica ons.

Features:

- **Fast:** Using a rapid spin column format, the en re procedure takes about 20 minutes.
- **High Yield:** The recovery yield of viral RNA is generally >85%.
- **Versa le:** Suitable for purifica on of viral RNA from Nasopharyngeal swabs (dry) or Transport medium/Viral transport medium (VTM) containing Nasopharyngeal swabs, Nasopharyngeal aspirates, and bronchoalveolar lavage (BAL) samples.
- **Non-toxic:** No phenol/chloroform are used.

Materials Supplied by User:

- Microcentrifuge capable of at least 12,000 × g
- RNase-Free pipe es and pipette ps
- Vortexer
- RNase-Free Ethanol (96-100%)
- RNase-Free Microcentrifuge tubes (1.5 ml or 2 ml)

Before Starting:

i Freshly Prepare the following ***Lysis Mastermix***:

Compo nent	Volume/rxn	Volume/50 rxns	Volume/250 rxns	Volume/500 rxns
Carrier RNA	2 µl	100 µl	500 µl	500 ul **x2**
Buffer Rlysis-VG	600 µl	30 ml	150 ml	150 ml **x2**

ii. Mix thoroughly by vortexing.

Composition:

Components	50 Prep Kit	250 Prep Kit	500 Prep Kit
Buffer Rlysis-VG	30 ml	15 0 m l	150 m l **x2**
Universal RPE Solu on **	12 ml	30 ml **x2**	40 ml **x3**
Nuclease-Free Water***	5 ml	25 ml	50 ml
EZ-10 Spin Columns	50	250	500
2 ml Collec on Tubes	50	250	500
Carrier RNA***	1 mg	1 mg	1 mg
Protocol	1		

****:** Universal RPE Solu on is supplied in a concentrated form. Before use, add 48 ml 96-100% ethanol to 12ml concentrated universal RPE solu on and mix well.

*****:** Add Nuclease-Free Water to the tube containing lyophilized Carr RNA to obtain a solu on of 1 µg/µL. Dissolve the carrier RNA thoroughly, divide it into conveniently sized aliquots, and store it at -20°C. Do not freeze-thaw the aliquots of Carrier RNA more than 3 mes.

Storage:

Upon recons tu on, Carrier RNA should be divided into conveniently sized aliquots and stored at –20°C. Do not freeze–thaw the aliquots of Carrier RNA more than 3 mes. All remaining kit components to be stored at 4°C to 25°C. The kit is valid for 1 year.

Procedure:

1. Sample prepara on:

A) Nasopharyngeal swabs (dry):

Select between method **a.1** (without Proteinase K) OR **a.2** (with Proteinase K - op onal):

a.1. Place the swab into a clean 1.5 ml microtube, and snap off the handle. Add 0.2 ml physiological saline, vortex for 30 sec. Then transfer 0.2 ml solu on to a new 1.5 ml microtube and proceed to step **2**.

a.2. If using Proteinase K (recommended for be er yield):

i) Add 300 µl of PBS (user supplied) and 10ul of 20mg/ml Proteinase K solu on (user supplied, *Bio Basic cat. #401*) to each swab sample.
ii) Incubate at 56°C for 5 min. with occasional mixing.
iii) Centrifuge at 10,000 X g (or max. speed) for 30 sec.
iv) Use 200 µl from this step as a sample and proceed to step **2**.

B) Transport medium/Viral transport medium (VTM) containing Nasopharyngeal swabs, Nasopharyngeal aspirates and bronchoalveolar lavage (BAL) samples:***

i. Vortex the tubes containing the swab at max. speed for 1 min.
ii. Use 200 µl from this step as a sample and proceed with step **2**.

***Note: **If transfer medium is very dilute i.e.** if the volume is **more than 400 µl**, **perform the below steps** for virus enrichment **instead of "i" and "ii":**
iii. Transfer appropriate liquid sample to a new 1.5 ml microtube,
iv. Centrifuge at 24,000 g for 60 min. at 4°C. Then keep approx. 0.2 ml solu on in the tube but discard the remaining and con nue to step **2**.

2. Add 0.6 ml of the recently prepared ***Lysis Mastermix*** into the tube from step **1**, vortex vigorously for 30 sec.; incubate at room temp. for 10 min.

NOTE: Lysis-Buffer-VG may form precipitate at 4°C, please dissolve it at 65°C and mix well before use.

3. Add equal volume of ethanol, mix by inver ng the tube.

4. Transfer the mixture into the spin column; keep at room temp. for 2 min.

5. Spin at 10,000 g for 1 min., discard the flow-through.

6. Add0.5 ml of Universal RPE Solu on* to the column, spin at 10,000 g for 1 min. and discard the flow-through.

*: Universal RPE Solu on is supplied in a concentrated form. Before use, add 48 ml 96-100% ethanol to 12ml concentrated universal RPE solu on and mix well.

7. Repeat the Step **6** once.

8. Centrifuge at 10,000 g for 1 min., discard the flow-through residue.

9. Transfer the column to a new 1.5 ml RNase-free microtube. Add 35-60 µl of Nuclease-Free Water onto the centre of the column; keep at room temp. for 2 min.

10. Spin at 10,000 g for 1 minute. Purified viral RNA is ready for use or keep at -20°C for long term storage.

Index of Symbols

IVD	*In Vitro* Diagnostic Use		See Instructions for Use
REF	Catalog Number		Manufacturing Date
	Expiry Date	Σ	Number of Tests
	Manufacturer	CE	CE Marking
	Caution		Store at 4- 25°C
LOT	Lot Number	EC REP	European Authorized Representative

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