



May 30, 2022

RNA stability in SPECTRA

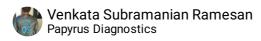
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protocol.



Protocol for storage of RNA in SPECTRA.

Venkata Subramanian Ramesan, Bhushan Toley 2022. RNA stability in SPECTRA. **protocols.io**

https://protocols.io/view/rna-stability-in-spectra-b54vq8w6

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Mar 09, 2022

May 30, 2022

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Following things will be provided:

- 1. SPECTRA Tube containing centrifuge tubes
- 2. Swabs
- 3. Total 18 samples

Source the RNA

- 1 Obtain any RNA (RNase P, SARS CoV-2, etc.)
- Quantify the RNA using a Nanodrop or RT-PCR. Convert to copy number using the following tool.

RNA copy number calculator



Apply RNA to the nylon flock

3 Add 10ul of 10⁴ copies /ul RNA to the swab

Flocked Swab

Fisher Scientific 22-025-195

3.1 **Caution**: the swab is slightly hydrophobic, hence try to smear the 10ul drop over the nylon flock with a pipette tip

Load the swab into the SPECTRA

4



Open the screw cap of the SPECTRA device and place it on a 50ml falcon stand (try to minimize exposure to air by keeping the device opened. Open the SPECTRA device just before loading the swab)

- 5 Put the swab into the centrifuge tube present inside the SPECTRA tube, and cut the plastic body just above the nylon flock head
- 6 /

DO NOT CLOSE THE 1.5ml CENTRIFUGE TUBE (IMPORTANT)

- 7 Close the 50ml centrifuge tube by screwing it tight
- 8 Store the SPECTRA tube for different durations at room temperature (25°C)

Α	В	С
Sample description	Storage Duration in	Sample code
	hours	
VTM Control	0	
Dry swab in SPECTRA	24	RNA A-1, RNA A-2
Dry swab in SPECTRA	24hrs	RNA B-1, RNA-B2

(2 controls, and 3 test)

RT-PCR

9 Add 300 μL of nuclease-free water to 1.5 mL centrifuge tube and mix it vigorously using a vortexer for at least 5 seconds each.

Vortexer VWR 97043-562

- 10 Spin-down the 1.5ml centrifuge tube (5 seconds)
- 11 Perform RT-PCR reaction for the RNA with suitable primers. Add \sim 15ul of the

7500 Real Time PCR System
ABI 4351104