SEP 08, 2020

RNAPath Target Identification via Fluorescent Hybridization

Devin Willis¹

¹Scooter Willis

XPRIIZE Rapid Covid Testing

RNAPath

Devin Willis

OPEN ACCESS

DOI:
dx.doi.org/10.17504/protocols.io.bk37kynr

External link:
<http://rnath.com/>

Protocol Citation: Devin Willis 2020. RNAPath Target Identification via Fluorescent Hybridization. **protocols.io** <https://dx.doi.org/10.17504/protocols.io.bk37kynr>

License: This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Protocol status: In development
 We are still developing and optimizing this protocol

Created: Sep 08, 2020

Last Modified: Sep 08, 2020

PROTOCOL integer ID:
 41823

MATERIALS

MATERIALS

⊗ SSC (20X), RNase-free **Thermo Fisher Catalog #AM9770**

⊗ Molecular Instruments HCR COVID Probe Set **Molecular Instruments**

⊗ Molecular Instruments Alexa Flour 488 B1 HCR Amplifier **Molecular Instruments**

STEP MATERIALS

⊗ Molecular Instruments HCR COVID Probe Set **Molecular Instruments**

⊗ TE Buffer **Thermo Fisher Catalog #12090015**

⊗ SSC Buffer, 20X, 1L **Promega Catalog #V4261**

BEFORE START INSTRUCTIONS

Ensure you have cleaned the workspace with an appropriate RNase away solution to prevent RNA degradation

Keywords: Molecular Instruments, COVID, Microscopy, Hybridization, Fluorescence, RNA

Sample Preparation

- 1 Suspend RNA pellet in 2 μL TE Buffer
TE Buffer **Thermo Fisher Catalog #12090015**

Hybridization

- 2 Add 2 μL Molecular Instruments COVID Probe Set to the RNA suspension
Molecular Instruments HCR COVID Probe Set **Molecular Instruments**
- 3 Place Molecular Instruments Alexa Flour 488 B1 HCR Amplifier in 90 °C for 00:02:00
- 4 Remove Molecular Instruments Alexa Flour 488 B1 HCR Amplifiers and place at Room temperature for 00:30:00
- 5 Add 2 μL of each Molecular Instruments Alexa Flour 488 B1 HCR Amplifier H1 and H2 to the RNA suspension
- 6 Dilute 100 μL of 20x SSC Buffer to 5x SSC Buffer
SSC Buffer, 20X, 1L **Promega Catalog #V4261**
- 7 Add 4 μL of 5x SSC Buffer to the RNA Suspension

8 Incubate at 37 °C for 12:00:00

Imaging

9 Remove sample from incubation and pipette 1 µL onto a glass slide with a coverslip

10 Image slide under a fluorescent microscope with filter cubes for FITC or Alexa Fluor 488