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RNAPath Target Identification via Fluorescent Hybridization

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XPRIZE Rapid Covid Tes... RNAPath

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External link: http://rnapath.com/

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

Created: September 08, 2020

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Keywords: Molecular Instruments, COVID, Microscopy, Hybridization, Flourescence, RNA, target identification via fluorescent hybridization, fluorescent hybridization, target identification, fluorescent,

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

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Troubleshooting

Before start

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

Sample Preperation

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 Flour 488