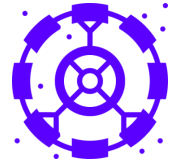


Sep 09, 2020

# RNAPath Target Identification via Fluorescent Hybridization

DOI

[dx.doi.org/10.17504/protocols.io.bk37kyrn](https://dx.doi.org/10.17504/protocols.io.bk37kyrn)



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XPRIZE Rapid Covid Tes...

RNAPath



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<https://dx.doi.org/10.17504/protocols.io.bk37kyrn>

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**Protocol status:** In development

**We are still developing and optimizing this protocol**

**Created:** September 08, 2020

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**Protocol Integer ID:** 41823

**Keywords:** Molecular Instruments, COVID, Microscopy, Hybridization, Fluorescence, 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 Preparation

- 1 Suspend RNA pellet in  2  $\mu\text{L}$  TE Buffer  
 TE Buffer **Thermo Fisher Catalog #12090015**

## Hybridization

- 2 Add  2  $\mu\text{L}$  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  $\mu\text{L}$  of each Molecular Instruments Alexa Flour 488 B1 HCR Amplifier H1 and H2 to the RNA suspension
- 6 Dilute  100  $\mu\text{L}$  of 20x SSC Buffer to 5x SSC Buffer  
 SSC Buffer, 20X, 1L **Promega Catalog #V4261**
- 7 Add  4  $\mu\text{L}$  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  $\mu\text{L}$  onto a glass slide with a coverslip



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