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XPRIZE SANATA Protocol for Swab LFIA Test

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1 Works for me dx.doi.org/10.17504/protocols.io.bkzjkx4n

XPRIZE Rapid Covid Testing SANATA

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ABSTRACT

This procedure outlines the protocol using any swab suitable for a SARS-CoV-2 sample collection. The purpose of this test is to detect low levels of SARS-CoV-2 antigen at a higher sensitivity. Precision Biomonitoring Inc. developed an ultra-rapid digital, disposable, highly-sensitive and inexpensive testing device used for screening purposes. The mobile app complementary to this medical device is connected through Bluetooth. Using this innovation, the patients can be tested at the point-of-care (POC), and obtain qualitative results. It is recommended that positive results should be confirmed by RT-PCR.

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PROTOCOL CITATION

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KEYWORDS

Lateral Flow, Covid-19, SARS-CoV-2, Antigen Testing, Pandemic, Global Pandemic, Virus

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GUIDELINES

- The digital device kits should be stored at room temperature and should never be exposed to extreme temperatures.
- The digital device kits are for single use. Do not reuse the kits. Dispose of all used materials in a biohazardous waste container.
- It is recommended that positive results should be confirmed by RT-PCR.

MATERIALS

NAME	CATALOG #	VENDOR
SWAB Lysis Tube	SWALT202001	Precision Biomonitoring Inc.
Disposable Graduated Transfer Pipette	13-711-9AM	Fisher Scientific
Flocked Swab	22-025-195	Fisher Scientific
LFIA Testing Device	N/A	Precision Biomonitoring Inc.

MATERIALS TEXT

Blutooth Smartphone

EQUIPMENT

NAME	CATALOG #	VENDOR
Flocked Swab	22-025-195	
Disposable Graduated Transfer Pipette	13-711-9AM	
LFIA device	N/A	
SWAB Lysis Tube	SWALT202001	

SAFETY WARNINGS

When working with human bodily fluids, pathogens may be present. Wear the correct personal protection equipment (ie. disposable gloves) and wash your hands immediately after removing the gloves. Dispose of materials in biohazardous waste containers.

Setting up the test 10s

1 10s

Ensure the smartphone is fully charged and Bluetooth on the smartphone is turned on. The mobile app should be downloaded and ready to run.

When working with human bodily fluids, pathogens may be present. Wear the correct personal protection equipment (ie.gloves) and wash hands immediately after removing the gloves.

Collecting and Preparing Sample 1m

2 Collect sample using any swab suitable for SARS-CoV-2 sample collection. For example: 30s

Flocked Swab

Fisher Scientific **22-025-195**

3 Rinse the used swab in 30s

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SWAB Lysis Tube

Precision Biomonitoring Inc.	SWALT202 001

by submerging the swab in the lysis buffer and rotating 5-7 times against the tube walls. Discard the swab in a biohazardous waste container.

Using Testing Device 13m 10s

4 Using 1m

Disposable Graduated Transfer Pipette

Fisherbrand	13-711-9AM

apply **80 µl** (3 drops) of the contents of the SWAB Lysis Tube into the sample port of the

LFIA device

Precision Biomonitoring Inc.	N/A

5 Place device on a flat surface. Let sample mixture run undisturbed for **00:12:00** at **Room temperature** . 12m

6 Ensure the smartphone is connected to the testing device through Bluetooth and read the results using the mobile phone app. 10s

The result will appear on screen as positive, negative, or inconclusive. If the result is inconclusive, conduct another test with a new device.

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