



SARS-CoV-2 Antigen Rapid Test (Nasal Swab) Package Insert For Self-testing

REF INCP-502H English

A rapid test for the qualitative detection of SARS-CoV-2 Nucleocapsid Protein antigens present in nasal swab specimen.

For self-testing *in vitro* diagnostic use.

INTENDED USE

The SARS-CoV-2 Antigen Rapid Test (Nasal Swab) is a single-use test kit intended to detect the SARS-CoV-2 that causes COVID-19 with self-collected nasal swab specimen. The test is intended for use in symptomatic individuals meeting the case definition for COVID-19 within the first 7 days of symptom onset, and to test individuals without symptoms suspected of COVID-19 due to contact with a confirmed COVID-19 case or probable cases and to at-risk health workers.

Results are for the detection of SARS-CoV-2 Nucleocapsid protein Antigens. An antigen is generally detectable in upper respiratory specimens during the acute phase of infection. Positive results indicate the presence of viral antigens, but clinical correlation with patient history and other diagnostic information is necessary to determine infection status.

Positive results are indicative of the presence of SARS-CoV-2. Individuals who test positive should self-isolate and seek additional information from their state or territory COVID testing service. Positive results do not rule out bacterial infection or co-infection with other viruses. Negative results do not preclude SARS-CoV-2 infection. Individuals who test negative and continue to experience COVID-like symptoms should seek follow up care from their local state or territory Covid 19 testing service.

The SARS-CoV-2 Antigen Rapid Test (Nasal Swab) obtains a preliminary result only, an aid diagnosis of COVID-19, for the final confirmation should be based on clinical diagnostic results according to local state or territory guidelines.

The SARS-CoV-2 Antigen Rapid Test (Nasal Swab) is intended to be used by laypersons as a self-test for home and workplace (in offices, for sporting events, airports, schools, etc.).

SUMMARY

The novel coronaviruses belong to the β genus. COVID-19 is an acute respiratory infectious disease. People are generally susceptible. Currently, the patients infected by the novel coronavirus are the main source of infection; asymptomatic infected people can also be an infectious source. Based on the current epidemiological investigation, the incubation period is 1 to 14 days, mostly 3 to 7 days. The main manifestations include fever, fatigue and dry cough. Nasal congestion, runny nose, sore throat, myalgia and diarrhea are found in a few cases¹.

PRINCIPLE

The SARS-CoV-2 Antigen Rapid Test (Nasal Swab) is a qualitative membrane-based immunoassay for the detection of SARS-CoV-2 nucleocapsid protein antigens in human swab specimen.

PRECAUTIONS

Please read all the information in this package insert before performing the test.

- For self-testing *in vitro* diagnostic use only. Do not use after expiration date.
- Do not eat, drink or smoke in the area where the specimens or kits are handled.
- Do not drink the buffer in the kit. Carefully handle the buffer and avoid it contacting skin or eyes, rinse with plenty of running water immediately if contacting.
- Store in a dry place at 2-30 °C (36-86 °F), avoiding areas of excess moisture. If the foil packaging is damaged or has been opened, please do not use.
- This test kit is intended to be used as a preliminary test only and repeatedly abnormal results should be discussed with doctor or medical professional.
- Follow the indicated time strictly.
- Use the test only once. Do not dismantle and touch the test window of the test cassette.
- The kit must not be frozen or used after the expiration date printed on the package.
- Keep out of the reach of children.
- Test can only be performed by adults over 18 years of age. Any persons or children under 18 years will require adult supervision or assistance. Not to be performed on children under 2 years of age.
- Wash hands thoroughly before and after handling.
- Please ensure that an appropriate amount of samples are used for testing. Too much or too little sample size may lead to deviation of results.

STORAGE AND STABILITY

Store as packaged in the sealed pouch at room temperature or refrigerated (2-30 °C). The test is stable through the expiration date printed on the sealed pouch. The test must remain in the sealed pouch until use. **DO NOT FREEZE.** Do not use beyond the expiration date.

MATERIALS

Materials Provided

- Test cassette
- Sterile swab
- Package insert
- Extraction buffer
- Biosafety bag (Optional)

Materials required but not provided

- Timer

LIMITATIONS

- Performance was evaluated with nasal swab specimens only, using the procedures provided in this package insert.
- The SARS-CoV-2 Antigen Rapid Test (Nasal Swab) will only indicate the presence of SARS-CoV-2 antigens in the specimen.
- If the test result is negative or non-reactive and clinical symptoms persist or being in a high risk setting or where there is an occupational risk or other requirement, it is because the very early infection virus may not be detected. It is recommended to test again with a new kit 1-2 days later or test with a laboratory PCR test to rule out infection in these individuals.
- Negative results do not rule out SARS-CoV-2 infection, particularly in those who have been in contact with the virus. Follow-up testing with a laboratory PCR test should be considered to rule out infection in these individuals.
- Positive results of COVID-19 may be due to infection with non-SARS-CoV-2 coronavirus strains or other interference factors.

- Failure to follow these procedures may alter test performance.
- False negative results may occur if a specimen is improperly collected or handled.
- False negative results may occur if inadequate levels of viruses are present in the specimen.
- The SARS-CoV-2 Antigen Rapid Test (Nasal Swab) is less reliable in the later phase of infection, it is recommended to use the test within the first 7 days of symptom onset.
- If testing is not performed within the first 7 days of symptom onset it is possible for this test to give a negative result that is incorrect (a false negative).
- The SARS-CoV-2 Antigen Rapid Test (Nasal Swab) is less reliable in the later phase of infection and in asymptomatic individuals.
- The SARS-CoV-2 Antigen Rapid Test (Nasal Swab) is a presumptive test only, contact your State or Territory Government Coronavirus testing service where you will be advised on whether there is a need for confirmatory testing by PCR and for follow-up clinical care.
- A negative result does not rule out infection with another type of respiratory virus.

PERFORMANCE CHARACTERISTICS

Clinical performance

A clinical evaluation was conducted comparing the results obtained using the SARS-CoV-2 Antigen Rapid Test with RT-PCR test result. The clinical trial included 574 nasal swab specimens. The results demonstrated 99.7% specificity and 96.4% sensitivity with an overall accuracy of 98.1%.

	PCR confirmed sample number	Correct identified	Rate
Positive sample	274	264	96.4% (Sensitivity)
Negative sample	300	299	99.7% (Specificity)
Total	574	563	98.1% (Total Accuracy)

The observed accuracy may vary depending on the prevalence of the virus in the population.

Days since symptom onset	RT-PCR positive	SARS-CoV-2 Antigen Rapid Test Positive	PPA
0-3	248	241	97.2%
4-7	26	23	88.5%

VARIANTS

The SARS-CoV-2 variant Alpha (UK B.1.1.7), Delta (Indian B.1.617.2), Gamma (B.1.1.28), VUI-21ARP-03 (Indian B.1.617.3) Beta (South Africa B.1.351) and Omicron (B.1.1.529) by the SARS-CoV-2 Antigen Rapid Test at specific concentrations.

LAY-USER STUDY

Totally 319 lay-user participants in SARS-CoV-2 Antigen Rapid Test lay-user study at Slovenia, Italy and German. Of the 319 participants, all participants obtained valid results, and all participants read the results correctly when compared with supervisor read.

Lay-users in different education backgrounds, different age distribution and different gender could collect samples, perform tests, obtain valid results, and read correct results using the package insert as guide to perform the test. SARS-CoV-2 Antigen Rapid Test product design and performance can be used for self-testing.

LIMITATION OF DETECTION

The SARS-CoV-2 Antigen Rapid Test can detect out SARS-CoV-2 heat-inactivated virus strain as low as 1×10^2 TCID₅₀/ml.

Cross-reactivity

Test results will not be affected by other respiratory viruses and commonly encountered microbial flora and low pathogenic coronaviruses listed as follows at certain concentrations:

Arcanobacterium, Pseudomonas aeruginosa, Candida albicans Staphylococcus aureus subsp. aureus, Corynebacterium, Staphylococcus epidermidis, Escherichia coli, Streptococcus pneumoniae, Moraxella catarrhalis, Streptococcus pyogenes, Neisseria lactamica, Streptococcus salivarius, Neisseria subflava, Streptococcus sp group F, Chlamydia pneumoniae Legionella pneumophila Philadelphia Bordetella Pertussis A639, Mycoplasma Pneumoniae.

Cross-Reactivity Continued

Our Test Results indicated there is the cross reactivity between SARS-CoV-1 and SARS-CoV-2 at the concentration equal to or more than 1ng/ml in detection of SARS-CoV-1 recombinant nucleocapsid protein. This is because SARS-CoV has high homology to the SARS-CoV-2.

Interfering Substances

Test results will not be interfered by following substances at certain concentrations: Whole Blood, Mucin, Budesonide Nasal Spray, Dexamethasone, Flunisolide, Mupirocin, Oxymetazoline, Phenylephrine, Rebetyl, Relenza, Tamiflu, Tobramycin.

EXTRA INFORMATION

1. How does the SARS-CoV-2 Antigen Rapid Test work?

The test is for the qualitative detection of SARS-CoV-2 antigens in self-collected swab specimens. A positive result indicates SARS-CoV-2 antigens present in the specimen.

2. When should the test be used?

SARS-CoV-2 antigen can be detected in acute respiratory tract infection, it is recommended to run the test in symptomatic individuals meeting the case definition for COVID-19 (•Acute onset of fever, cough; or •Acute onset of ANY THREE OR MORE of the following signs or symptoms: Fever, cough, general weakness/fatigue, headache, myalgia, sore throat, coryza, dyspnoea, anorexia/nausea/vomiting, diarrhoea, altered mental status.), and to test asymptomatic individuals limited to contacts of confirmed COVID-19 cases or probable cases and to at-risk health workers.

3. Can the result be incorrect?

The results are accurate as far as the instructions are carefully respected.

Nevertheless, the result can be incorrect if inadequate sampling volume or the SARS-CoV-2 Antigen Rapid Test gets wet before test performing, or if the number of extraction buffer drops are less than 3 or more than 4. Besides, due to immunological principles involved, there exist the chances of false results in rare cases. A consultation with the doctor is always recommended for such tests based on immunological principles.

4. How to interpret the test if the color and the intensity of the lines are different?

The color and intensity of the lines have no importance for result interpretation. The lines should only be homogeneous and clearly visible. The test should be considered as positive whatever the color intensity of the test line is.

5. What do I have to do if the result is negative?

A negative result means that you are negative or that the viral load is too low to be recognized by the test. However, it is possible for this test to give a negative result that is incorrect (a false negative) in some people

with COVID-19. This means you could possibly still have COVID-19 even though the test is negative. If you experience symptoms such as headaches, migraines, fever, loss of sense of smell and taste, contact the nearest COVID testing service using the rules of your local authority. In addition, you can repeat the test with a new test kit. In case of suspicion, repeat the test after 1-2 days, as the coronavirus cannot be precisely detected in all phases of an infection. Distance and hygiene rules must still be observed. Even with a negative test result, distance and hygiene rules must be observed, migration/traveling, attending events and etc. should follow your local COVID guidelines/requirements.

6. What do I have to do if the result is positive?

A positive result means the presence of SARS-CoV-2 antigens. A positive result means it is very likely you have COVID-19. Immediately go into self-isolation in accordance with the local state or territory guidelines and immediately contact your State or Territory Coronavirus testing service and you will be explained the next steps. Refer to your relevant health authority for advice on whether a PCR test is required to confirm your result.

7. Information of how to contact locally available support services.

For advice on how to seek medical help or get tested for coronavirus (COVID-19) you can contact your state or territory health authority, please see your local contact numbers below:

LOCAL CONTACT DETAILS AND LINKS

For COVID-19 health advice, including advice on finding services near you call Healthline on 0800 358 5453 anytime.

<https://www.health.govt.nz/your-health/services-and-support/health-care-services/healthline>

Contact MEDSAFE to report an adverse event or quality issue to devices@health.govt.nz using the relevant adverse event forms available at <https://www.medsafe.govt.nz/regulatory/devicesnew/9adverseevent.asp>

BIBLIOGRAPHY

- Diagnosis and Treatment Protocol for Novel Coronavirus Pneumonia (Trial Version 7). National Health Commission & National Administration of Traditional Chinese Medicine.2020.

INDEX OF SYMBOLS

	For <i>in vitro</i> diagnostic use only		Tests per kit		Do not reuse
	Store between 2-30°C		Use by		Catalog #
	Do not use if package is damaged		Lot Number		
	Manufacturer		Consult Instructions For Use		

Hangzhou AllTest Biotech Co.,Ltd.
#550, Yinhai Street
Hangzhou Economic & Technological Development Area
Hangzhou, 310018 P.R. China
Web: www.alltests.com.cn Email: info@alltests.com.cn

Sponsored by:
Eurofins ELS Limited,
85 Port Road, Seaview, Lower Hutt, New Zealand.
Phone (04) 575 4016

To watch the instructional video: <https://www.eurofins.com.au/eurofins-technologies/products/gsd-novagen-sars-cov-2-rapid-antigen-test-self-test/>

Scan the QR code to download an instructional video



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SARS-CoV-2 Antigen Rapid Test (Nasal Swab) Instruction Guide

BEFORE STARTING

Wash your hands with soap and water for at least 20 seconds before and after test. If soap and water are not available, use hand sanitizer with at least 60% alcohol. Make sure they are dry before starting.



PREPARE FOR THE TEST

Check the expiration date on the box. Do not use if the kit if it has been damaged or has expired.

Ensure kit is at room temperature for at least 30 minutes prior to use.

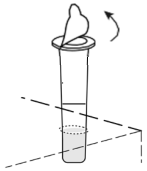
Open the box carefully as it will be used in a later step.

Do not open individual components until instructed.

Note: A timing device (clock, timer, phone etc.) is required, but not provided.

1. SPECIMEN COLLECTION

Remove the cover of the tube with Extraction buffer and place the tube in the tube holder .



Nasal swab specimen Collection

1. Remove the sterile swab from the pouch.
2. Insert the swab into your nostril until you feel slight resistance (Approx. 2cm up your nose). Slowly twist the swab, rubbing it along the insides of your nostril for 5-10 times against the nasal wall.

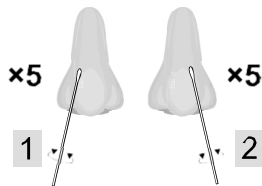
Note:

This may feel uncomfortable. Do not insert the swab any deeper if you feel strong resistance or pain.

When the nasal mucosa is damaged or bleeding, nasal swab collection is not recommended.

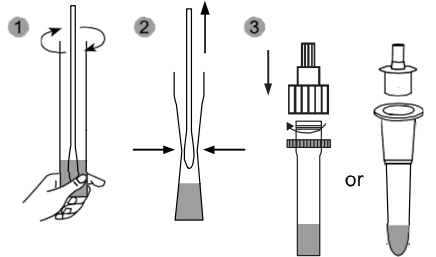
If you are swabbing others, please wear a face mask. With children, you may not need to insert the swab as far into the nostril. For very young children, you may need another person to steady the child's head while swabbing.

3. Gently remove the swab.
4. Using the same swab, repeat step 2 in your other nostril.
5. Withdraw the swab.



SPECIMEN PREPARATION

1. Place the swab into the Extraction tube, ensure it is touching the bottom and stir the swab to mix well. Press the swab head against to the tube and rotate the swab for **10-15 seconds**.
2. Remove the swab while squeezing the swab head against the inside of the Extraction tube. Place the swab in the plastic bag.
3. Close the cap or fit the tube tip onto the tube.

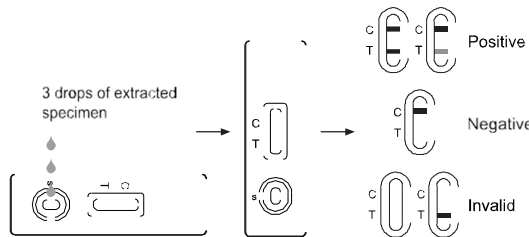


2. TESTING

1. Remove the test cassette from the sealed foil pouch and use it within one hour. Best results will be obtained if the test is performed immediately after opening the foil pouch. Place the test cassette on a flat and level surface.
2. Invert the specimen extraction tube and add **3 drops of extracted specimen** to the **sample well(S)** of the test cassette and start the timer.
3. **Read the result at 15 minutes.**



Do not read the result after 20 minutes.

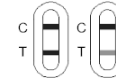


! Do not touch the Test Device during this period.

3. READING THE RESULTS

Please share your test result with your healthcare provider and carefully follow your COVID guidelines/requirements.

POSITIVE: Two distinct colored lines appear.



One colored line should be in the control region (C) and another colored line should be in the Test region (T).

***NOTE:** The intensity of the color in the test line region (T) will vary based on the amount of SARS-CoV-2 antigen present in the sample. So any shade of color in the test region (T) should be considered positive.

A positive result means it is very likely you have COVID-19. Immediately go into self-isolation in accordance with the local guidelines and immediately contact your State or Territory Government Coronavirus testing service where you will be explained the next steps. Refer to your relevant health authority for advice on whether a PCR test is required to confirm your result.

NEGATIVE: One colored line appears in the control region (C).



No colored line appears in the test line region (T).

You are unlikely to have COVID-19. However, it is possible for this test to give a negative result that is incorrect (a false negative) in some people with COVID-19. This means you could possibly still have COVID-19 even though the test is negative. If you experience symptoms such as headaches, migraines, fever, loss of sense of smell or taste, contact the nearest covid 19 testing service according to the rules of your local authority. In addition, you can repeat the test with a new test kit. In case of suspicion, repeat the test after 1-2 days, as the coronavirus cannot be precisely detected in all phases of an infection.

Even with a negative test result, distance and hygiene rules must be observed, migration/traveling, attending events etc. and you should follow your local COVID guidelines/requirements.

INVALID: Control line fails to appear.

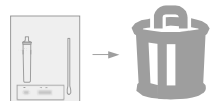


Insufficient specimen volume or incorrect procedural techniques are the most likely reasons for control line failure. Review the procedure and repeat the test with a new test or contact a COVID-19 test center.

4. DISPOSE THE TEST KIT

After the test is complete, place all the components in a plastic bag (eg. biosafety bag) and tightly sealed, then dispose in household waste or rubbish bin.

Dispose according to local regulations.



Customer Support Helpline: Call 1800 318 042 9am-7pm 7 days per week for information on the correct use of this test and for interpretation of the test results.